# SERVICE MANUAL

Best.Nr.492701801

## DVD-VCR

MODEL : DVD-VCR 4330
(V640GP)

universum.

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# SECTION 1

# SUMMARY

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# PRODUCT SAFETY SERVICING GUIDELINES FOR VIDEO PRODUCTS

CAUTION : DO NOT ATTEMPT TO MODIFY THIS PRODUCT IN ANY WAY, NEVER PERFORM CUSTOMIZED INSTALLATIONS WITHOUT MANUFACTURER'S APPROVAL. UNAUTHORIZED MODIFICATIONS WILL NOT ONLY VOID THE WARRANTY, BUT MAY LEAD TO YOUR BEING LIABLE FOR ANY RESULTING PROPERTY DAMAGE OR USER INJURY.

SERVICE WORK SHOULD BE PERFORMED ONLY AFTER YOU ARE THOROUGHLY FAMILIAR WITH ALL OF THE FOLLOWING SAFETY CHECKS AND SERVICING GUIDELINES. TO DO OTHERWISE, INCREASES THE RISK OF POTENTIAL HAZARDS AND INJURY TO THE USER.

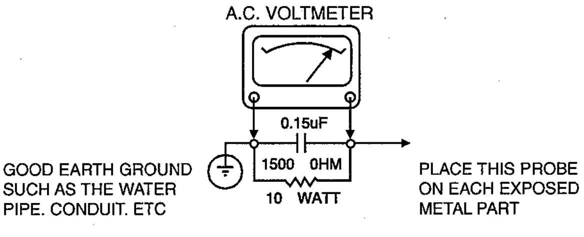
WHILE SERVICING, USE AN ISOLATION TRANSFORMER FOR PROTECTION FROM A.C. LINE SHOCK.

## SAFETY CHECKS

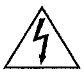
AFTER THE ORIGINAL SERVICE PROBLEM HAS BEEN CORRECTED. A CHECK SHOULD BE MADE OF THE FOLLOWING.

### SUBJECT : FIRE & SHOCK HAZARD

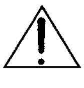
1. BE SURE THAT ALL COMPONENTS ARE POSITIONED IN SUCH A WAY AS TO AVOID POSSIBILITY OF ADJACENT COMPONENT SHORTS. THIS IS ESPECIALLY IMPORTANT ON THOSE MODULES WHICH ARE TRANSPORTED TO AND FROM THE REPAIR SHOP.
2. NEVER RELEASE A REPAIR UNLESS ALL PROTECTIVE DEVICES SUCH AS INSULATORS, BARRIERS, COVERS, SHIELDS, STRAIN RELIEFS, POWER SUPPLY CORDS, AND OTHER HARDWARE HAVE BEEN REINSTALLED PER ORIGINAL DESIGN. BE SURE THAT THE SAFETY PURPOSE OF THE POLARIZED LINE PLUG HAS NOT BEEN DEFEATED.
3. SOLDERING MUST BE INSPECTED TO DISCOVER POSSIBLE COLD SOLDER JOINTS, SOLDER SPLASHES OR SHARP SOLDER POINTS. BE CERTAIN TO REMOVE ALL LOOSE FOREIGN PARTICLES.
4. CHECK FOR PHYSICAL EVIDENCE OF DAMAGE OR DETERIORATION TO PARTS AND COMPONENTS. FOR FRAYED LEADS, DAMAGED INSULATION (INCLUDING A.C. CORD). AND REPLACE IF NECESSARY FOLLOW ORIGINAL LAYOUT, LEAD LENGTH AND DRESS.
5. NO LEAD OR COMPONENT SHOULD TOUCH A RECIVING TUBE OR A RESISTOR RATED AT 1 WATT OR MORE. LEAD TENSION AROUND PROTRUNING METAL SURFACES MUST BE AVOIDED.
6. ALL CRITICAL COMPONENTS SUCH AS FUSES, FLAMEPROOF RESISTORS, CAPACITORS, ETC. MUST BE REPLACED WITH EXACT FACTORY TYPES, DO NOT USE REPLACEMENT COMPONENTS OTHER THAN THOSE SPECIFIED OR MAKE UNRECOMMENDED CIRCUIT MODIFICATIONS.
7. AFTER RE-ASSEMBLY OF THE SET ALWAYS PERFORM AN A.C. LEAKAGE TEST ON ALL EXPOSED METALLIC PARTS OF THE CABINET, (THE CHANNEL SELECTOR KNOB, ANTENNA TERMINALS. HANDLE AND SCREWS) TO BE SURE THE SET IS SAFE TO OPERATE WITHOUT DANGER OF ELECTRICAL SHOCK. DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST USE AN A.C. VOLTMETER, HAVING 5000 OHMS PER VOLT OR MORE SENSITIVITY, IN THE FOLLOWING MANNER; CONNECT A 1500 OHM 10 WATT RESISTOR, PARALLELED BY A .15 MFD. 150.V A.C TYPE CAPACITOR BETWEEN A KNOWN GOOD EARTH GROUND (WATER PIPE, CONDUIT, ETC.) AND THE EXPOSED METALLIC PARTS, ONE AT A TIME. MEASURE THE A.C. VOLTAGE ACROSS THE COMBINATION OF 1500 OHM RESISTOR AND .15 MFD CAPACITOR. REVERSE THE A.C. PLUG AND REPEAT A.C. VOLTAGE MEASUREMENTS FOR EACH EXPOSED METALLIC PART. VOLTAGE MEASURED MUST NOT EXCEED 75 VOLTS R.M.S. THIS CORRESPONDS TO 0.5 MILLIAMP A.C ANY VALUE EXCEEDING THIS LIMIT CONSTITUTES A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED IMMEDIATELY.



### SUBJECT: GRAPHIC SYMBOLS



THE LIGHTNING FLASH WITH APROWHEAD SYMBOL. WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF IMPORTANT SAFETY INFORMATION IN SERVICE LITERATURE.

SUBJECT : X-RADIATION

1. BE SURE PROCEDURES AND INSTRUCTIONS TO ALL SERVICE PERSONNEL COVER THE SUBJECT OF X-RADIATION. THE ONLY POTENTIAL SOURCE OF X-RAYS IN CURRENT T.V. RECEIVERS IS THE PICTURE TUBE. HOWEVER, THIS TUBE DOES NOT EMIT X-RAYS WHEN THE HIGH VOLTAGE IS AT THE FACTORY SPECIFIED LEVEL. THE PROPER VALUE IS GIVEN IN THE APPLICABLE SCHEMATIC. OPERATION AT HIGHER VOLTAGES MAY CAUSE A FAILURE OF THE PICTURE TUBE OR HIGH VOLTAGE SUPPLY AND, UNDER CERTAIN CIRCUMSTANCES, MAY PRODUCE RADIATION IN EXCESS OF DESIRABLE LEVELS.
2. ONLY FACTORY SPECIFIED C.R.T. ANODE CONNECTORS MUST BE USED. DEGAUSSING SHIELDS ALSO SERVE AS X-RAY SHIELD IN COLOR SETS, ALWAYS RE-INSTALL THEM.
3. IT IS ESSNTIAL THAT SERVICE PERSONNEL HAVE AVAILABLE AN ACCURATE AND RELIABLE HIGH VOLTAGE METER. THE CALIBRATION OF THE METER SHOULD BE CHECKED PERIODICALLY AGAINST A REFERENCE STANDARD, SUCH AS THE ONE AVAILABLE AT YOUR DISTRIBUTOR.
4. WHEN THE HIGH VOLTAGE CIRCUITRY IS OPERATING PROPERLY THERE IS NO POSSIBILITY OF AN X-RADIATION PROBLEM. EVERY TIME A COLOR CHASSIS IS SERVICED. THE BRIGHTNESS SHOULD BE RUN UP AND DOWN WHILE MONITORING THE HIGH VOLTAGE WITH A METER TO BE CERTAIN THAT THE HIGH VOLTAGE DOES NOT EXCEED THE SPECIFIED VALUE AND THAT IT IS REGULATING CORRECTLY, WE SUGGEST THAT YOU AND YOUR SERVICE ORGANIZATION REVIEW TEST PROCEDURES SO THAT VOLTAGE REGULATION IS ALWAYS CHECKED AS A STANDARD SERVICING PROCEDURE. AND THAT THE HIGH VOLTAGE READING BE RECORDER ON EACH CUSTOMER'S INVOICE.
5. WHEN TROUBLESHOOTING AND MAKING TEST MEASUREMENTS IN A PRODUCT WITH A PROBLEM OF EXCESSIVE HIGH VOLTAGE, AVOID BEING UNNECESSARILY CLOSE TO THE PICTURE TUBE AND THE HIGH VOLTAGE SUPPLY. DO NOT OPERATE THE PRODUCT LONGER THAN IS NECESSARY TO LOCATE THE CAUSE OF EXCESSIVE VOLTAGE.
6. REFER TO HV. B+ AND SHUTDOWN ADJUSTMENT PROCEDURES DESCRIBED IN THE APPROPRIATE SCHEMATIC AND DIAGRAMS (WHERE USED).

SUBJECT: IMPLOSION

1. ALL DIRECT VIEWED PICTURE TUBES ARE EQUIPPED WITH AN INTEGRAL IMPLOSION PROTECTION SYSTEM, BUT CARE SHOULD BE TAKEN TO AVOID DAMAGE DURING INSTALLATION, AVOID SCRATCHING THE TUBE. IF SCRATCHED REPLACE IT.
2. USE ONLY RECOMMENDED FACTORY REPLACEMENT TUBES.

SUBJECT : TIPS ON PROPER INSTALLATION

1. NEVER INSTALL ANY PRODUCT IN A CLOSED-IN RECESS, CUBBYHOLE OR CLOSELY FITTING SHELF SPACE. OVER OR CLOSE TO HEAT DUCT, OR IN THE PATH OF HEATED AIR FLOW.
2. AVOID CONDITIONS OF HIGH HUMIDITY SUCH AS: OUTDOOR PATIO INSTALLATIONS WHERE DEW IS A FACTOR, NEAR STEAM RADIATORS WHERE STEAM LEAKAGE IS A FACTOR, ETC.
3. AVOID PALCEMENT WHERE DRAPERIES MAY OBSTRUCT REAR VENTING. THE CUSTOMER SHOULD ALSO AVOID THE USE OF DECORATIVE SCARVES OR OTHER COVERINGS WHICH MIGHT OBSTRUCT VENTILATION.
4. WALL AND SHELF MOUNTED INSTALLATIONS USING A COMMERCIAL MOUNTING KIT. MUST FOLLOW THE FACTORY APPROVED MOUNTING INSTRUCTIONS A PRODUCT MOUNTED TO A SHELF OR PLATFORM MUST RETAIN ITS ORIGINAL FEET (OR THE EQUIVALENT THICKNESS IN SPACERS) TO PROVIDE ADEQUATE AIR FLOW ACROSS THE BOTTOM, BOLTS OR SCREWS USED FOR FASTENERS MUST NOT TOUCH ANY PARTS OR WIRING. PERFORM LEAKAGE TEST ON CUSTOMIZED INSTALLATIONS.
5. CAUTION CUSTOMERS AGAINST THE MOUNTING OF A PRODUCT ON SLOPING SHELF OR A TILTED POSITION, UNLESS THE PRODUCT IS PROPERLY SECURED.
6. A PRODUCT ON A ROLL-ABOUT CART SHOULD BE STABLE ON ITS MOUNTING TO THE CART. CAUTION THE CUSTOMER ON THE HAZARDS OF TRYING TO ROLL A CART WITH SMALL CASTERS ACROSS THRESHOLDS OR DEEP PILE CARPETS.
7. CAUTION CUSTOMERS AGAINST THE USE OF A CART OR STAND WHICH HAS NOT BEEN LISTED BY UNDERWRITERS LABORATORIES, INC. FOR USE WITH THEIR SPECIFIC MODEL OF TELEVISION RECEIVER OR GENERICALLY APPROVED FOR USE WITH T.V.'S OF THE SAME OR LARGER SCREEN SIZE.
8. CAUTION CUSTOMERS AGAINST THE USE OF EXTENSION CORDS, EXPLAIN THAT A FOREST OF EXTENSIONS SPROUTING FROM A SINGLE OUTLET CAN LEAD TO DISASTROUS CONSEQUENCES TO HOME AND FAMILY.

# SERVICING PRECAUTIONS

CAUTION : Before servicing the VCR+DVD covered by this service data and its supplements and addends, read and follow the *SAFETY PRECAUTIONS. NOTE* : if unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions in this publications, always follow the safety precautions.
*Remembers Safety First:*

**General Servicing Precautions**

1. Always unplug the VCR+DVD AC power cord from the AC power source before:
   (1) Removing or reinstalling any component, circuit board, module, or any other assembly.
   (2) Disconnection or reconnecting any internal electrical plug or other electrical connection.
   (3) Connecting a test substitute in parallel with an electrolytic capacitor.
   **Caution** : A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.

2. Do not spray chemicals on or near this VCR+DVD or any of its assemblies.

3. Unless specified otherwise in this service data, clean electrical contacts by applying an appropriate contact cleaning solution to the contacts with a pipe cleaner, cotton-tipped swab, or comparable soft applicator.
   Unless specified otherwise in this service data, lubrication of contacts is not required.

4. Do not defeat any plug/socket B+ voltage interlocks with whitch instruments covered by this service manual might be equipped.

5. Do not apply AC power to this VCR+DVD and/or any of its electrical assemblies unless all solid-state device heat sinks are cerrectly installed.

6. Always connect test instrument ground lead to the appropriate ground before connection the test instrument positive lead. Always remove the test instrument ground lead last.

**Insulation Checking Procedure**

Disconnect the attachment plug from the AC outlet and turn the power on. Connect an insulation resistance meter(500V) to the blades of the attachment plug. The insulation resistance between each blade of the attachment plug and accessible conductive parts (Note 1) should be more than 1M-ohm.
**Note 1 :** Accessible Conductive Parts including Metal panels, Input terminals, Earphone jacks, etc.

**Electrostatically Sensitive (ES) Devices**

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field effect transistors and semiconductor chip components.
The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grouned-tip soldering iron to solder or unsolder ES devices.

4. Use only an anti-static solder removal device. Some solder removal devices not classified a "anti-static" can generate electrical charges sufficient to damage ES devices.

5. Do not use freon-propelled chemicals. These can generate electrical charge sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil, or comparable conductive material).

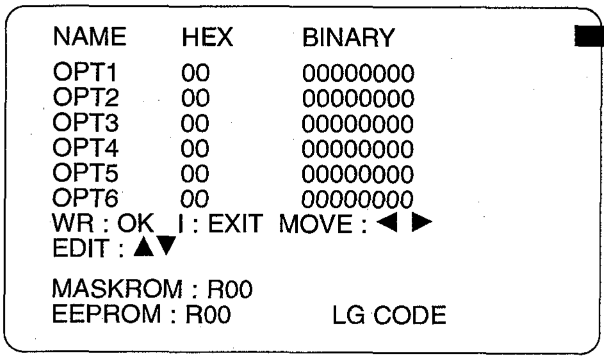
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

   Caution : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

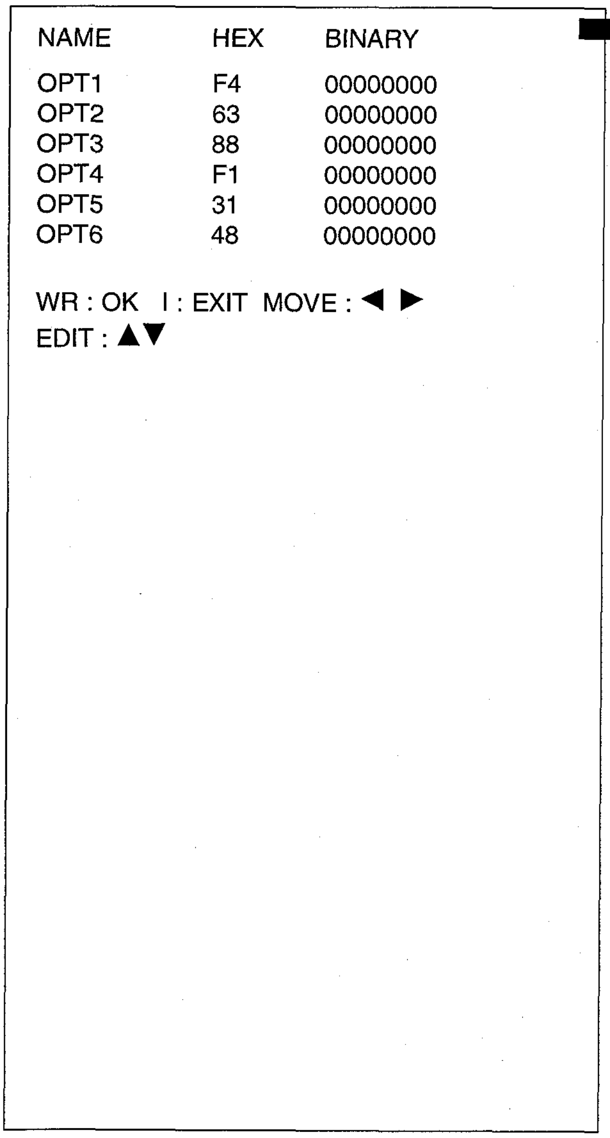
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Normally harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

# SERVICE INFORMATION FOR EEPROM IC SETTING

## EEPROM option code No. setting



```
NAME     HEX     BINARY
OPT1     00      00000000
OPT2     00      00000000
OPT3     00      00000000
OPT4     00      00000000
OPT5     00      00000000
OPT6     00      00000000
WR : OK   I : EXIT  MOVE : ◄ ►
EDIT : ▲▼
MASKROM : R00
EEPROM : R00          LG CODE
```



```
NAME          HEX     BINARY

OPT1          F4      00000000
OPT2          63      00000000
OPT3          88      00000000
OPT4          F1      00000000
OPT5          31      00000000
OPT6          48      00000000

WR : OK   I : EXIT  MOVE : ◄ ►
EDIT : ▲▼
```

## EEPROM option code No. setting procedure

1. DETECT NEW EEPROM (OPTION EDIT SCREEN)
   - Eeprom EDIT screen automatically appears if replacing Eeprom.
   - Setup option data using the cursor Up/Down key of a remote control.
     (Setup upon BOM depending on OPT1~OPT6 model)
   - Since an initial remote control is set to LG for LG model, appropriately set optiona data using the cursor Up/Down key.

2. EEPROM WRITED COMPLETE SCREEN
   - Writes data on EEPROM by using REMOCON "OK".
   - If completing the option data screen with a menu key, Powering Off is automatically done and the option edit screen is arranged.

3. PG ADJUST
   1) Payback the SP standard tape
   2) Press the "1" key on the Remote controller and the "PLAY" key on the Front Panel the same time, then it goes in to Tracking initial mode.
   3) Repeat the above step(No.2), then it finishes the PG adjusting automatically.
   4) Stop the playback, then it goes out to PG adjusting mode after mony the PG data.

4. EEPROM INITIAL
   - SETUP is displayed in the field if pressing the FRONT REC KEY with the remocon number "CLEAR" key pressed in the status of powering Off.
   - AUTO SEARCH is done since the initial screen of ACMS is serviced if powering On.
   - Check basic operation (PLAY/RECORD...)

# SPECIFICATIONS

## DVD PART

| | |
|---|---|
| Power supply | AC230V, 50 Hz |
| Power consumtion | 23W |
| Mass | 5.4kg |
| External dimensions | 430 x 97.5 x 360 (W x H x D) |
| Signal system | PAL 625/50, NTSC 525/60 |
| Laser | Semiconductor laser, wavelength 650nm |
| Frequency range (digital audio) | 4 Hz to 20 kHz |
| Signal-to-noise ratio (digital audio) | More than 100 dB (EIAJ) |
| Audio dynamic range (digital audio) | More than 95 dB (EIAJ) |
| Harmonic distortion(digital audio) | 0.008% |
| Wow and flutter | Below measurable level (less than +0.001%(W.PEAK)) (EIAJ) |
| Operations | Temperature : 5°C(41°F) to 35°C(95°F),<br>Operation status : Horizontal |

## OUTPUTS

| | |
|---|---|
| Video outputs | 1.0V(p-p), 75Ω, negative sync., RCA jack x 1/SCART(TO TV) |
| S video outputs | (Y)1.0V(p-p), 75Ω, negative sync.,Mini DIN 4-pin x 1<br>(C)0.3V(p-p), 75Ω |
| Component video output | (Y) 1.0 V (p-p), 75 Ω, negative sync., RCA jack x 1<br>(Pb)/(Pr) 0.7 V (p-p), 75 Ω |
| Audio output(digital audio) | 0.5V(p-p), 75Ω, RCA jack X 1/SCART(TO TV) |
| Audio output(optical audio) | Optical connector x 1 |
| Audio output(analog audio) | 2.0Vrms (1kHz, 0dB), 330Ω, RCA jack (L, R) x 1/SCART(TO TV) |

## VHS PART

| | |
|---|---|
| Video Head System | Double azimuth 4 heads, helical scanning |
| Tape format | Tape width 12.7 mm (0.5 inch) |
| Timer | 24 hours display type |

*Designs and specifications are subject to change without notice.

*Weight and dimensions shown are approximate.

# SECTION 2

# CABINET & MAIN CHASSIS

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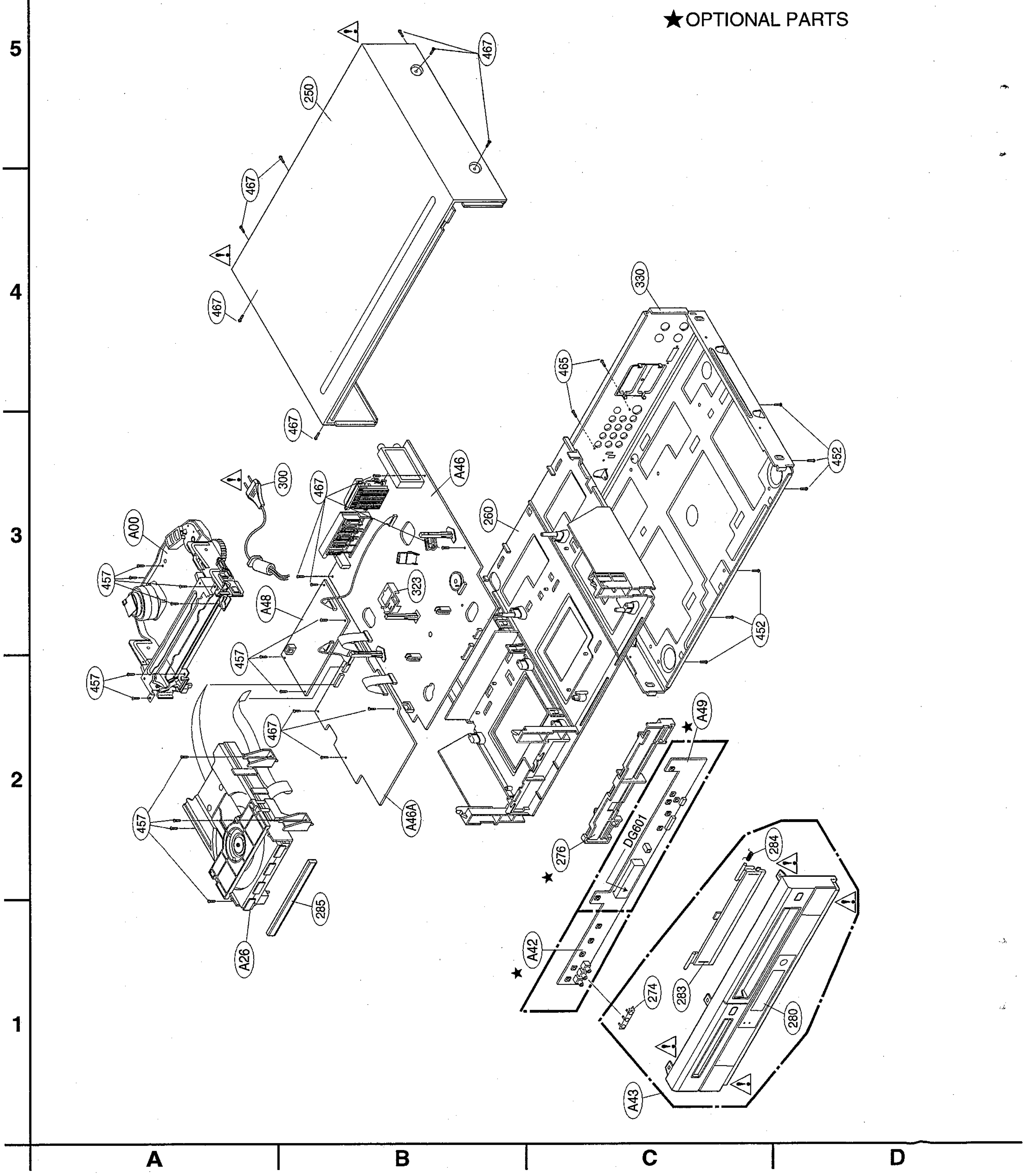
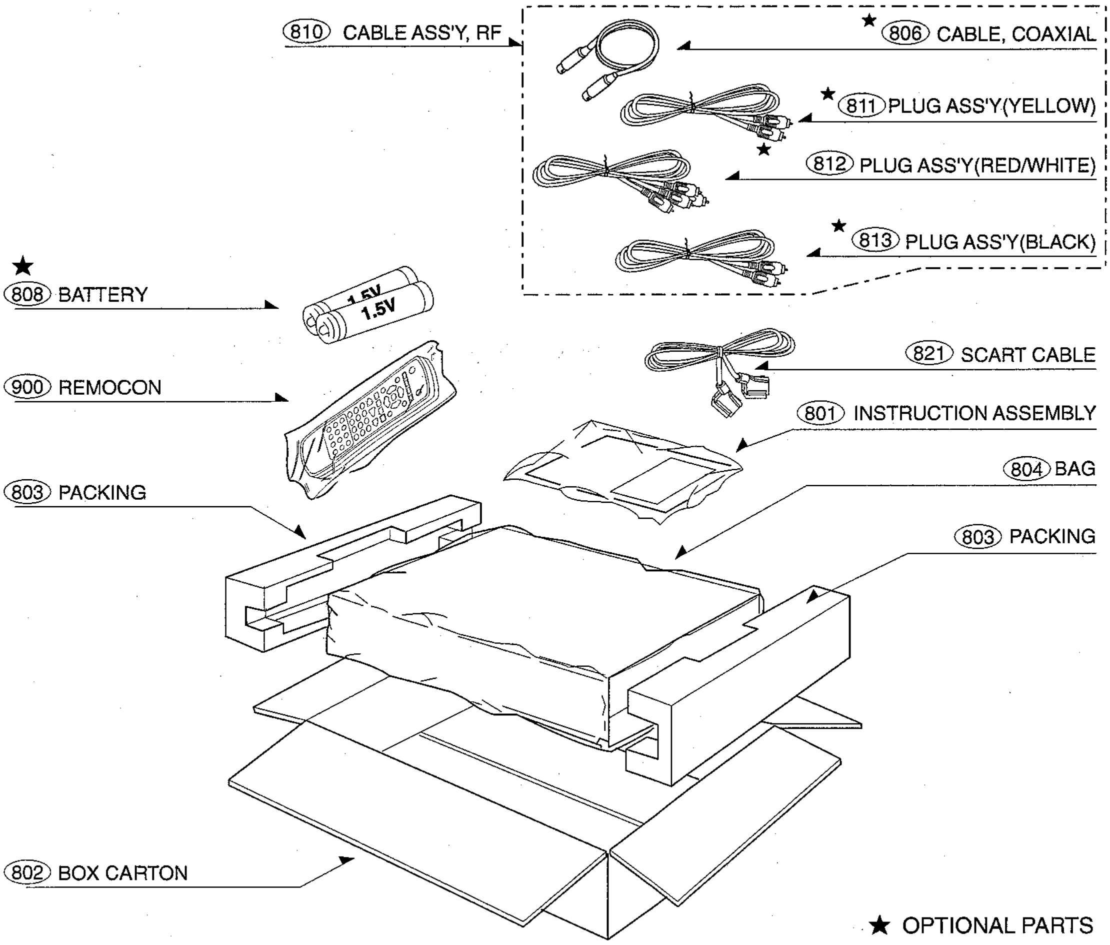
# EXPLODED VIEWS

## 1. Cabinet and Main Frame Section


★OPTIONAL PARTS
467
250
467
467
467
330
465
452
300
467
A46
A00
457
260
323
A48
457
452
457
467
A49
2
457
A46A
DG601
276
284
285
A42
274
283
280
A26
A43
5
4
3
1
A
B
C
D

## 2. Packing Accessory Section



⑧10 CABLE ASS'Y, RF
★ 806 CABLE, COAXIAL
★ 811 PLUG ASS'Y(YELLOW)
★ 812 PLUG ASS'Y(RED/WHITE)
★ 813 PLUG ASS'Y(BLACK)
★ 808 BATTERY
1.5V
1.5V
900 REMOCON
821 SCART CABLE
801 INSTRUCTION ASSEMBLY
804 BAG
803 PACKING
803 PACKING
802 BOX CARTON
★ OPTIONAL PARTS

# SECTION 3
# ELECTRICAL

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VCR PART

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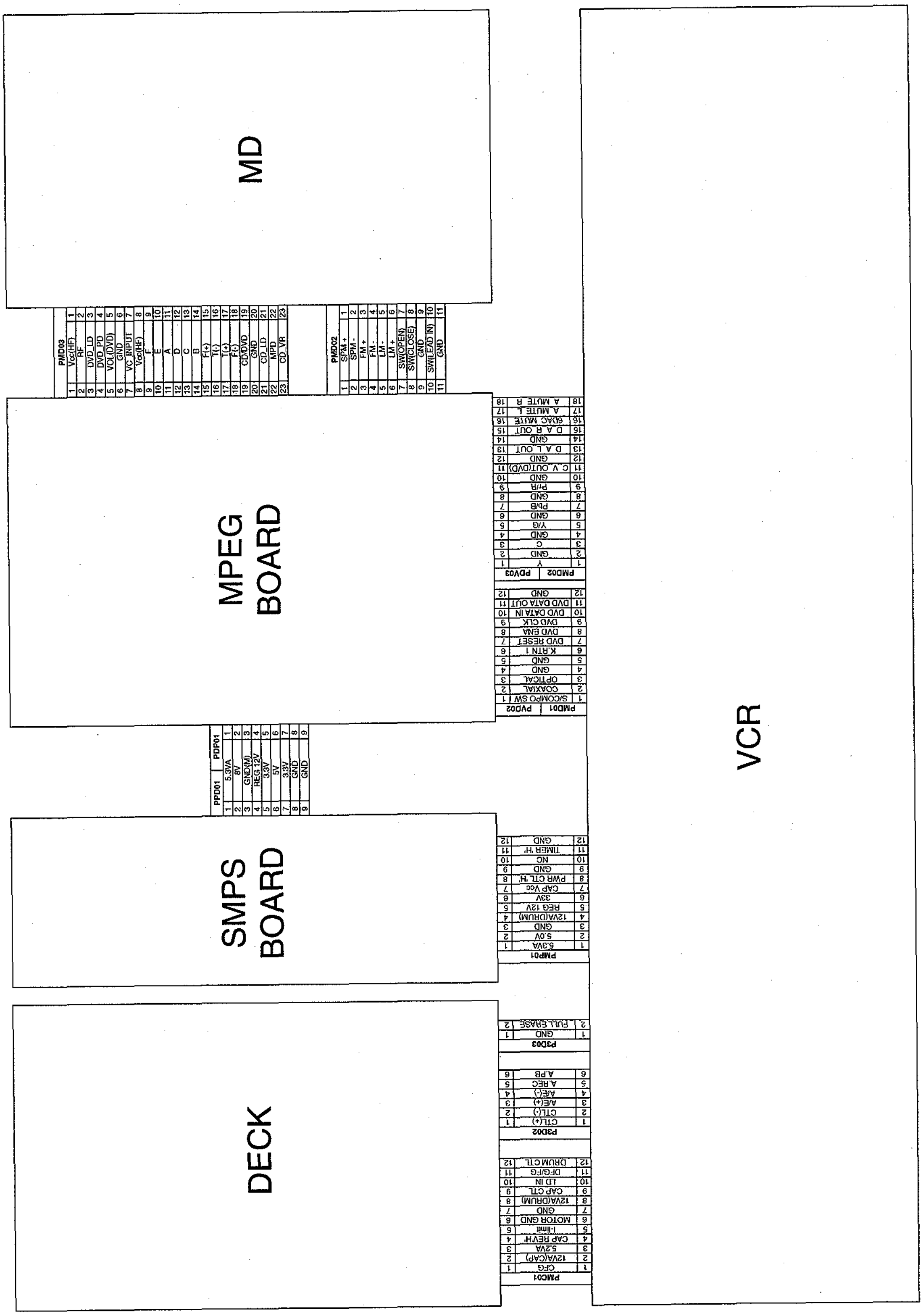
# OVERALL WIRING DIAGRAM


MD
MPEG BOARD
SMPS BOARD
DECK
VCR
PMD03
1 Vcc(HF)
2 RF
3 DVD_LD
4 DVD_PD
5 VOL(DVD)
6 GND
7 VC_INPUT
8 Vcc(HF)
9 F
10 E
11 A
12 D
13 C
14 B
15 F(+)
16 T(-)
17 T(+)
18 F(-)
19 CD/DVD
20 GND
21 CD_LD
22 MPD
23 CD_VR
PMD02
1 SPM +
2 SPM -
3 FM +
4 FM -
5 LM -
6 LM +
7 SW(OPEN)
8 SW(CLOSE)
9 GND
10 SW(LEAD IN)
11 GND
PMD02
PDV03
1 Y
2 GND
3 C
4 GND
5 Y/G
6 GND
7 Pb/B
8 GND
9 Pr/R
10 GND
11 C_V_OUT(DVD)
12 GND
13 D_A_L_OUT
14 GND
15 D_A_R_OUT
16 6DAC MUTE
17 A_MUTE_L
18 A_MUTE_R
PMD01
PVD02
1 S/COMPO SW
2 COAXIAL
3 OPTICAL
4 GND
5 GND
6 K.RTN 1
7 DVD RESET
8 DVD ENA
9 DVD CLK
10 DVD DATA IN
11 DVD DATA OUT
12 GND
PPD01
PDP01
1 5.3VA
2 8V
3 GND(M)
4 REG 12V
5 33V
6 5V
7 3.3V
8 GND
9 GND
PMP01
1 5.3VA
2 5.0V
3 GND
4 12VA(DRUM)
5 REG 12V
6 33V
7 CAP Vcc
8 PWR CTL 'H'
9 GND
10 NC
11 TIMER 'H'
12 GND
P3D03
1 GND
2 FULL ERASE
P3D02
1 CTL(+)
2 CTL(-)
3 A/E(+)
4 A/E(-)
5 A.REC
6 A.PB
PMC01
1 CFG
2 12VA(CAP)
3 5.2VA
4 CAP REV'H'
5 I-limit
6 MOTOR GND
7 GND
8 12VA(DRUM)
9 CAP CTL
10 LD IN
11 DFG/FG
12 DRUM CTL

# VCR PART
# ELECTRICAL ADJUSTMENT PROCEDURES

## 1. Servo Adjustment

### 1) PG Adjustment

- Test Equipment

a) OSCILLOSCOPE
b) NTSC MODEL : NTSC SP TEST TAPE
C) PAL MODEL : PAL SP TEST TAPE

- Adjustment And Specification

| MODE | MEASUREMENT POINT | ADJUSTMENT POINT | SPECIFICATION |
|---|---|---|---|
| PLAY | V.Out<br>H/SW(JP05, JP06) | R/C TRK JIG KEY | 6.5 ± 0.5H |

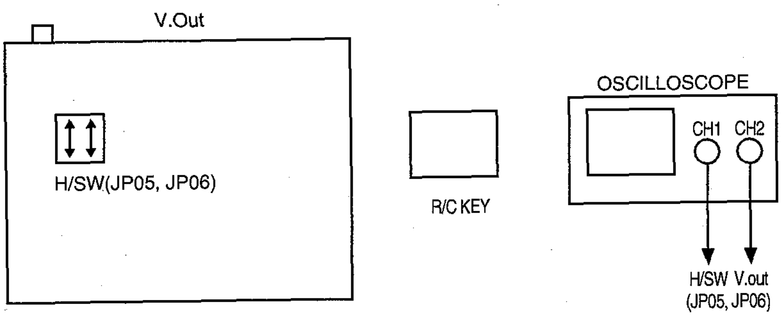
- **Adjustment Procedure**

a) Insert the SP Test Tape and play.
   Note - Adjust the distance of X, pressing the Tracking(+) or Tracking(-) when the “ATR” is blink after the SP Test Tape is inserted.
b) Connect the CH1 of the oscilloscope to the H/SW(JP05, JP06) and CH2 to the Video Out for the VCR.
c) Trigger the mixed Combo Video Signal of CH2 to the CH1 H/SW(JP05, JP06), and then check the distance (time difference), which is from the selected A(B) Head point of the H/SW(JP05, JP06) signal to the starting point of the vertical synchronized signal, to 6.5H ± 0.5H (412μs, 1H=63μs).

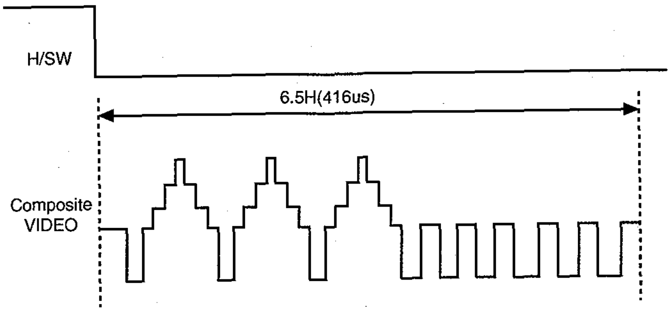
- **PG Adjustment Method**

a-1) Payback the SP standard tape
b-2) Press the “1” key on the Remote controller and the “PLAY” key on the Front Panel the same time, then it goes in to Tracking initial mode.
c-3) Repeat the above step(No.b-2), then it finishes the PG adjusting automatically.
d-4) Stop the playback, then it goes out to PG adjusting mode after mony the PG data.

- **CONNECTION**



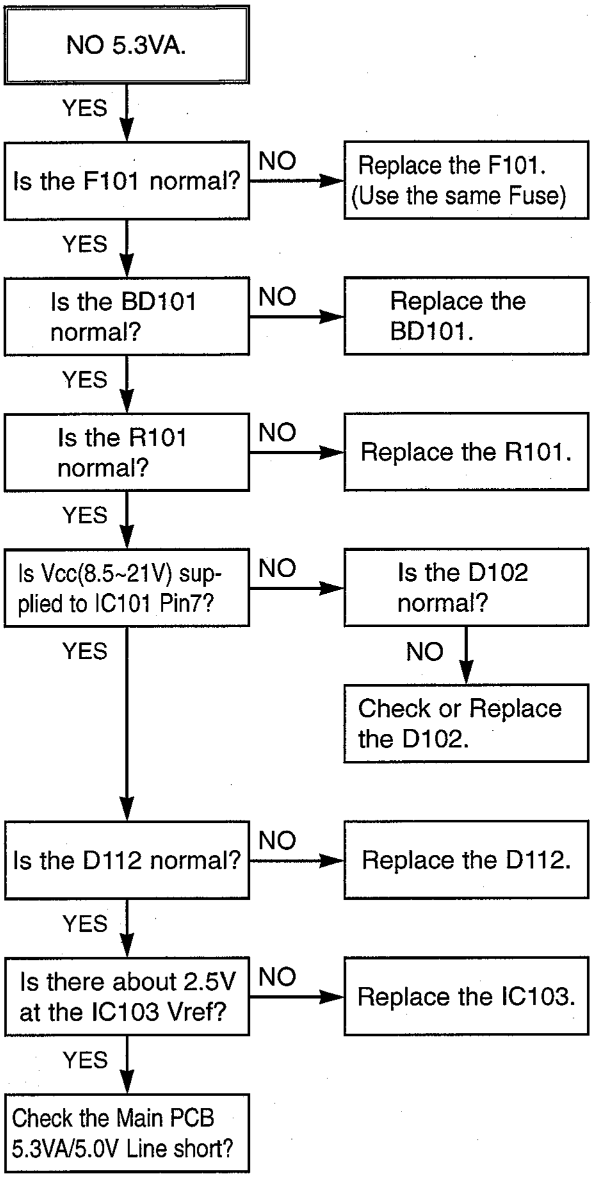
- **WAVEFORM**



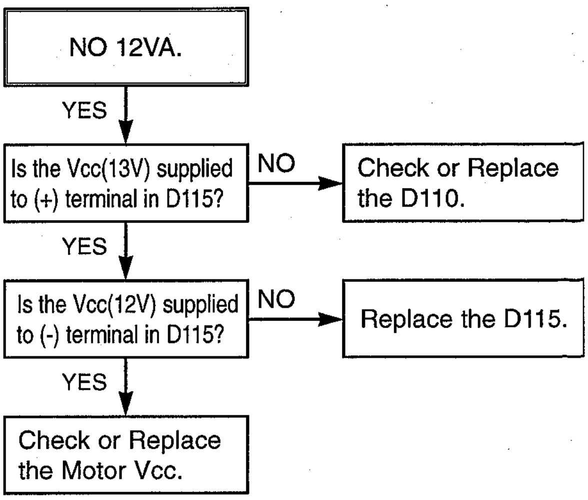
# ELECTRICAL TROUBLESHOOTING GUIDE

## 1. Power(SMPS) CIRCUIT

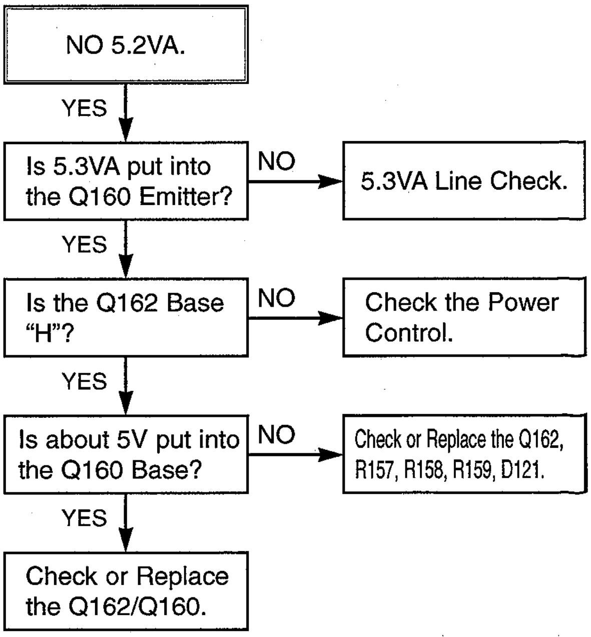
(1) No 5.3VA (SYS/Hi-Fi/TUNER)


NO 5.3VA.
YES
Is the F101 normal?
NO
Replace the F101. (Use the same Fuse)
YES
Is the BD101 normal?
NO
Replace the BD101.
YES
Is the R101 normal?
NO
Replace the R101.
YES
Is Vcc(8.5~21V) supplied to IC101 Pin7?
NO
Is the D102 normal?
NO
Check or Replace the D102.
YES
Is the D112 normal?
NO
Replace the D112.
YES
Is there about 2.5V at the IC103 Vref?
NO
Replace the IC103.
YES
Check the Main PCB 5.3VA/5.0V Line short?

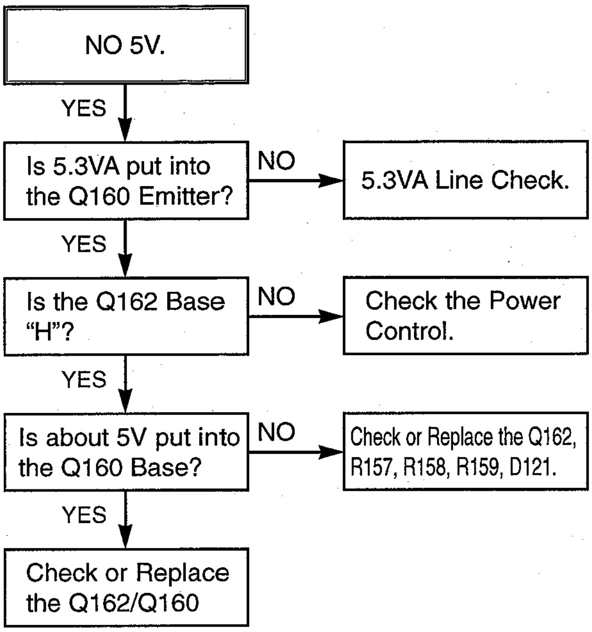
(2) No 12VA (TO CAP, DRUM MOTOR)


NO 12VA.
YES
Is the Vcc(13V) supplied to (+) terminal in D115?
NO
Check or Replace the D110.
YES
Is the Vcc(12V) supplied to (-) terminal in D115?
NO
Replace the D115.
YES
Check or Replace the Motor Vcc.

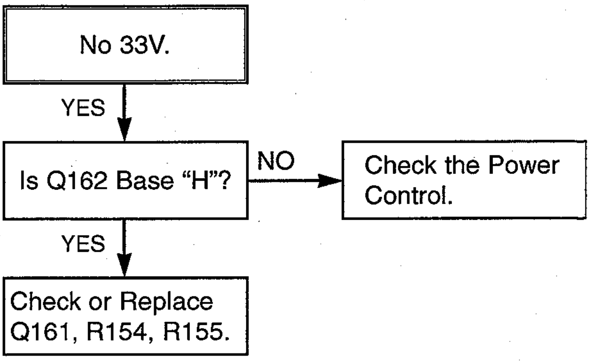
(3) No 5.2V (SYS/Hi-Fi/TUNER)


NO 5.2VA.
YES
Is 5.3VA put into the Q160 Emitter?
NO
5.3VA Line Check.
YES
Is the Q162 Base "H"?
NO
Check the Power Control.
YES
Is about 5V put into the Q160 Base?
NO
Check or Replace the Q162, R157, R158, R159, D121.
YES
Check or Replace the Q162/Q160.

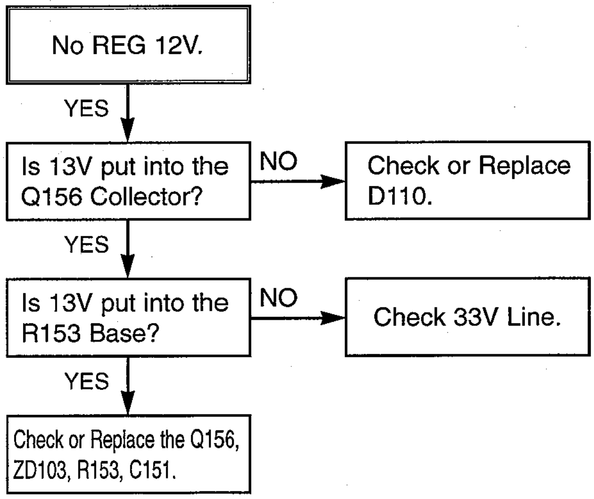
(4) No 5V (TO DVD)


NO 5V.
YES
Is 5.3VA put into the Q160 Emitter?
NO
5.3VA Line Check.
YES
Is the Q162 Base "H"?
NO
Check the Power Control.
YES
Is about 5V put into the Q160 Base?
NO
Check or Replace the Q162, R157, R158, R159, D121.
YES
Check or Replace the Q162/Q160

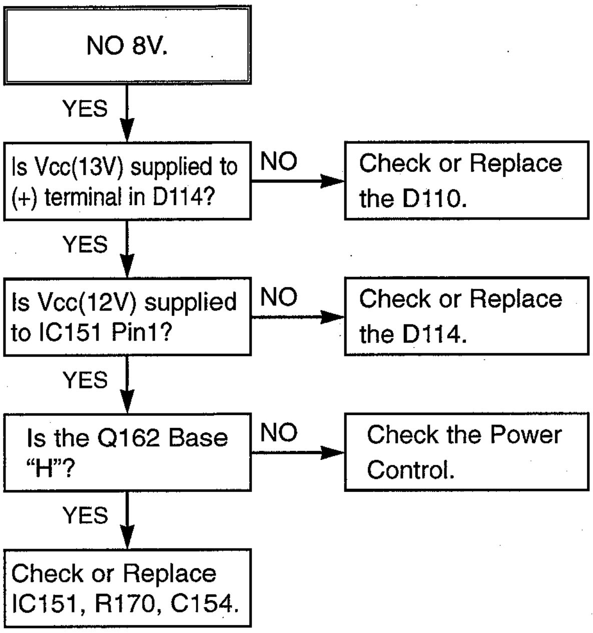
(5) No 33V (TUNER)


No 33V.
YES
Is Q162 Base "H"?
NO
Check the Power Control.
YES
Check or Replace Q161, R154, R155.

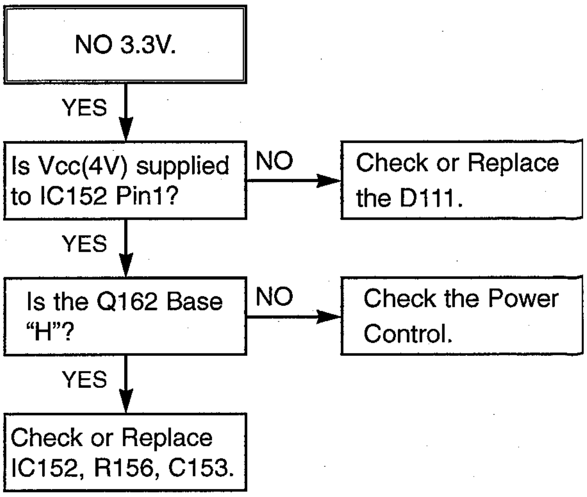
(6) No REG 12V


No REG 12V.
YES
Is 13V put into the Q156 Collector?
NO
Check or Replace D110.
YES
Is 13V put into the R153 Base?
NO
Check 33V Line.
YES
Check or Replace the Q156, ZD103, R153, C151.

### (7) No 8V(TO DVD)

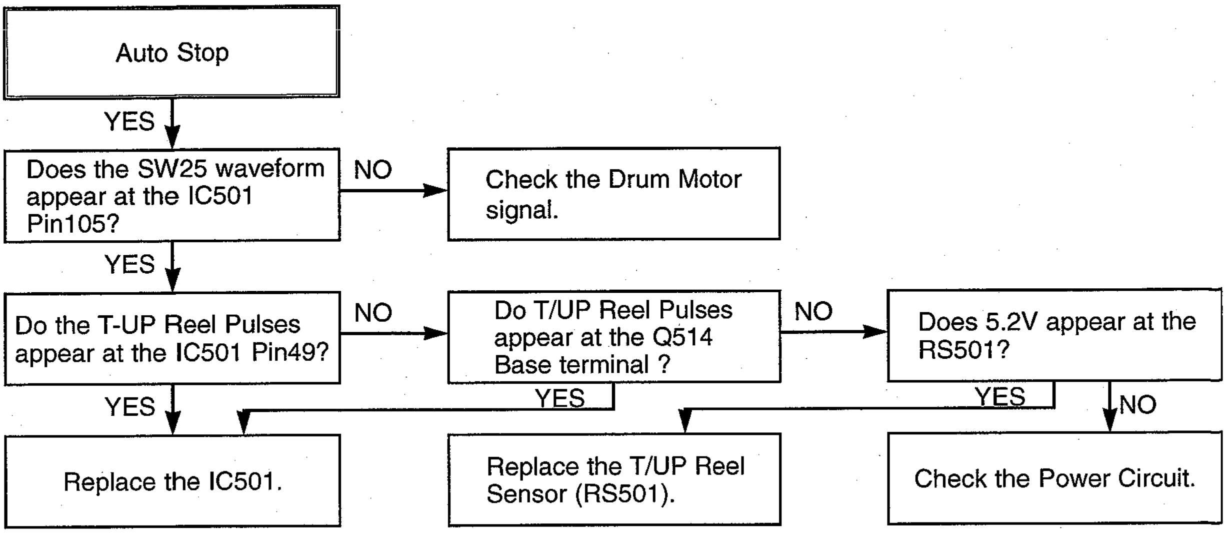

NO 8V.
YES
Is Vcc(13V) supplied to (+) terminal in D114?
NO
Check or Replace the D110.
YES
Is Vcc(12V) supplied to IC151 Pin1?
NO
Check or Replace the D114.
YES
Is the Q162 Base "H"?
NO
Check the Power Control.
YES
Check or Replace IC151, R170, C154.

### (8) No 3.3V(TO DVD)

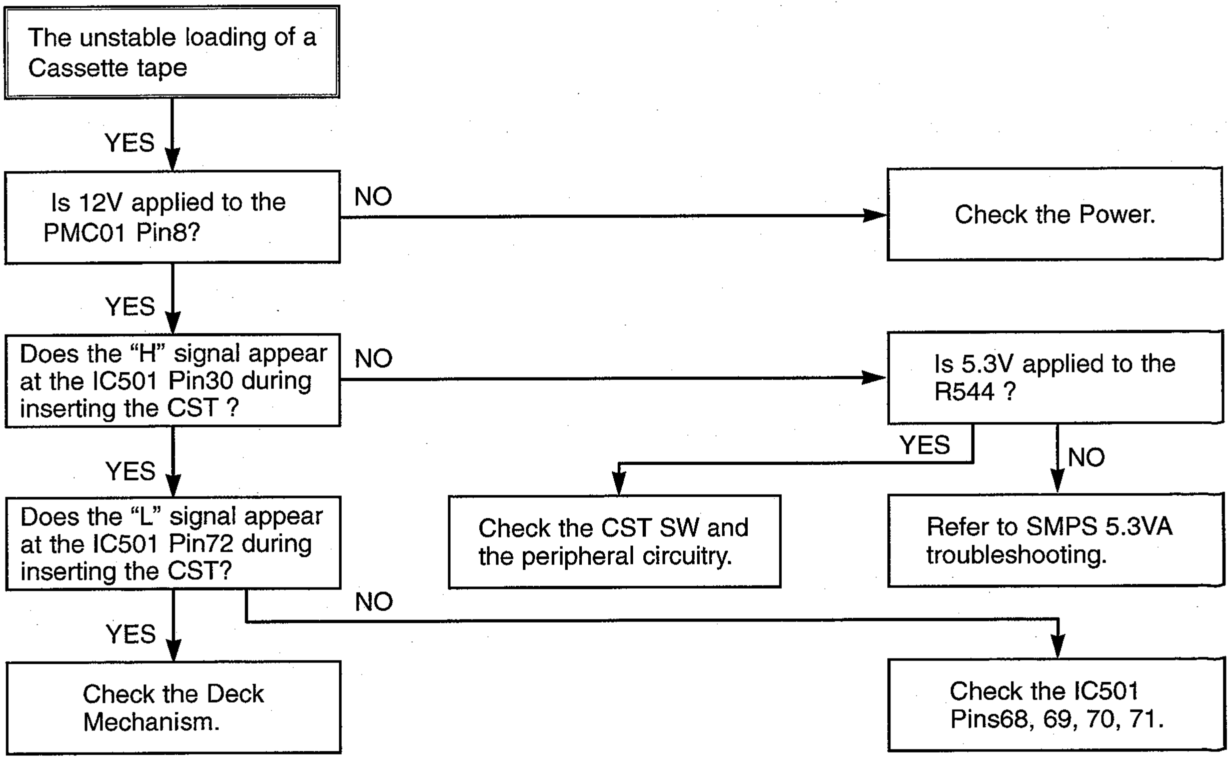

NO 3.3V.
YES
Is Vcc(4V) supplied to IC152 Pin1?
NO
Check or Replace the D111.
YES
Is the Q162 Base "H"?
NO
Check the Power Control.
YES
Check or Replace IC152, R156, C153.

## 2. SYSTEM/KEY CIRCUIT

### (1) AUTO STOP


Auto Stop
YES
Does the SW25 waveform appear at the IC501 Pin105?
NO
Check the Drum Motor signal.
YES
Do the T-UP Reel Pulses appear at the IC501 Pin49?
NO
Do T/UP Reel Pulses appear at the Q514 Base terminal ?
NO
Does 5.2V appear at the RS501?
YES
YES
YES
NO
Replace the IC501.
Replace the T/UP Reel Sensor (RS501).
Check the Power Circuit.

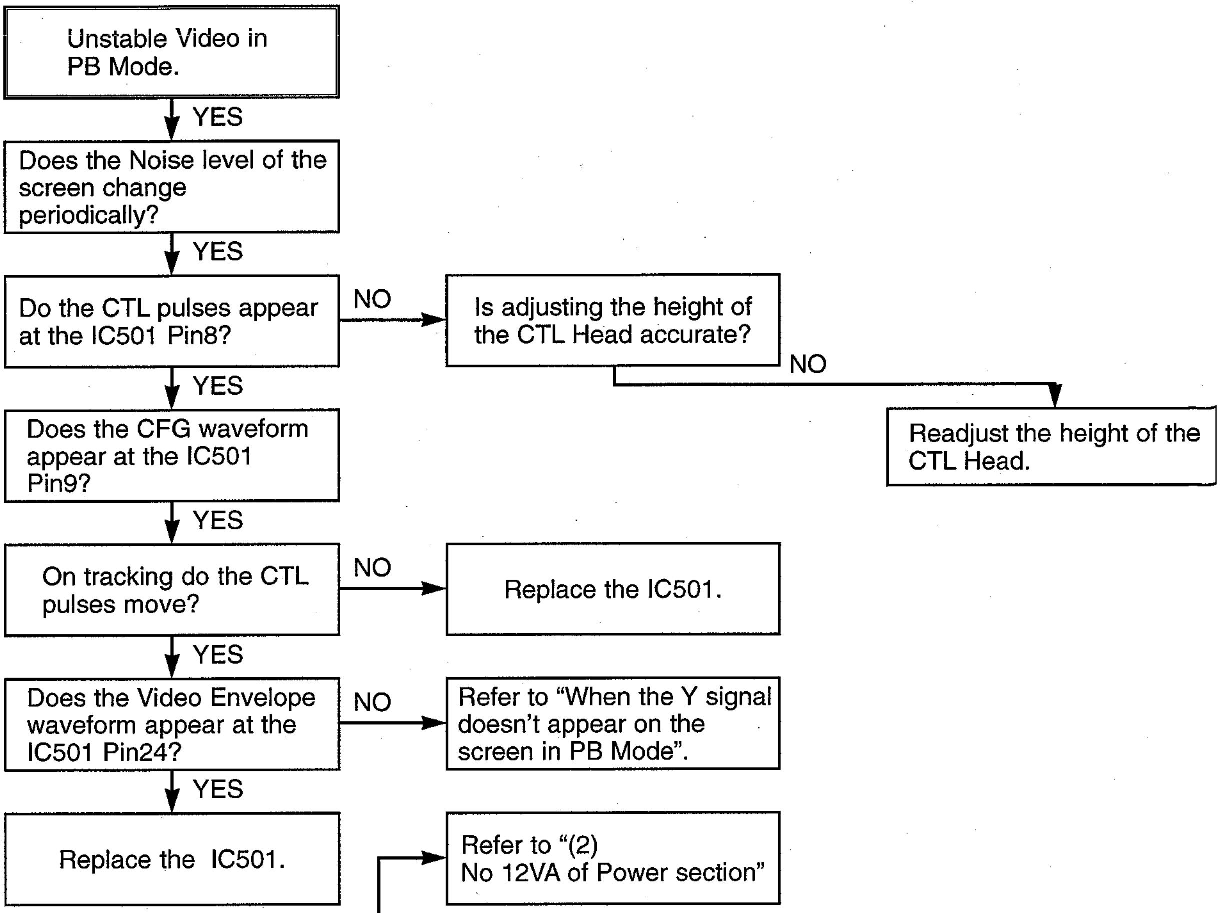
### (2) The unstable loading of a Cassette tape


The unstable loading of a Cassette tape
YES
Is 12V applied to the PMC01 Pin8?
NO
Check the Power.
YES
Does the "H" signal appear at the IC501 Pin30 during inserting the CST ?
NO
Is 5.3V applied to the R544 ?
YES
YES
NO
Does the "L" signal appear at the IC501 Pin72 during inserting the CST?
Check the CST SW and the peripheral circuitry.
Refer to SMPS 5.3VA troubleshooting.
NO
YES
Check the Deck Mechanism.
Check the IC501 Pins68, 69, 70, 71.

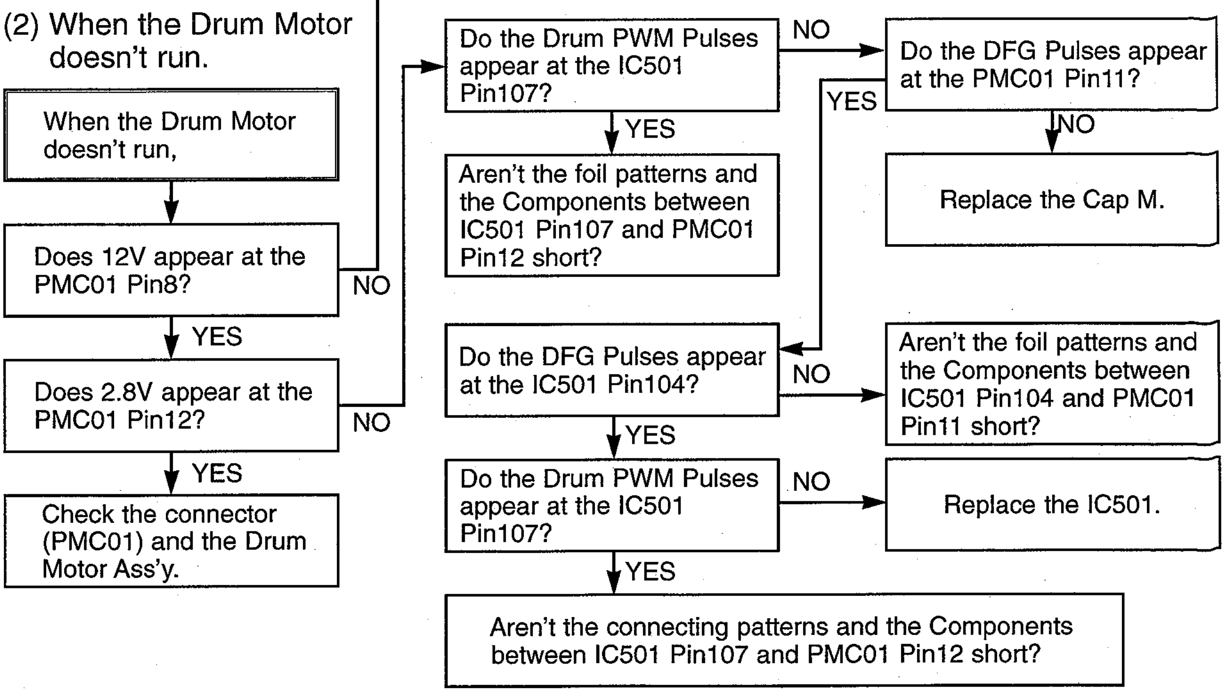
**Caution :** Auto stop can occur because Grease or Oil is dried up

## 3. SERVO CIRCUIT

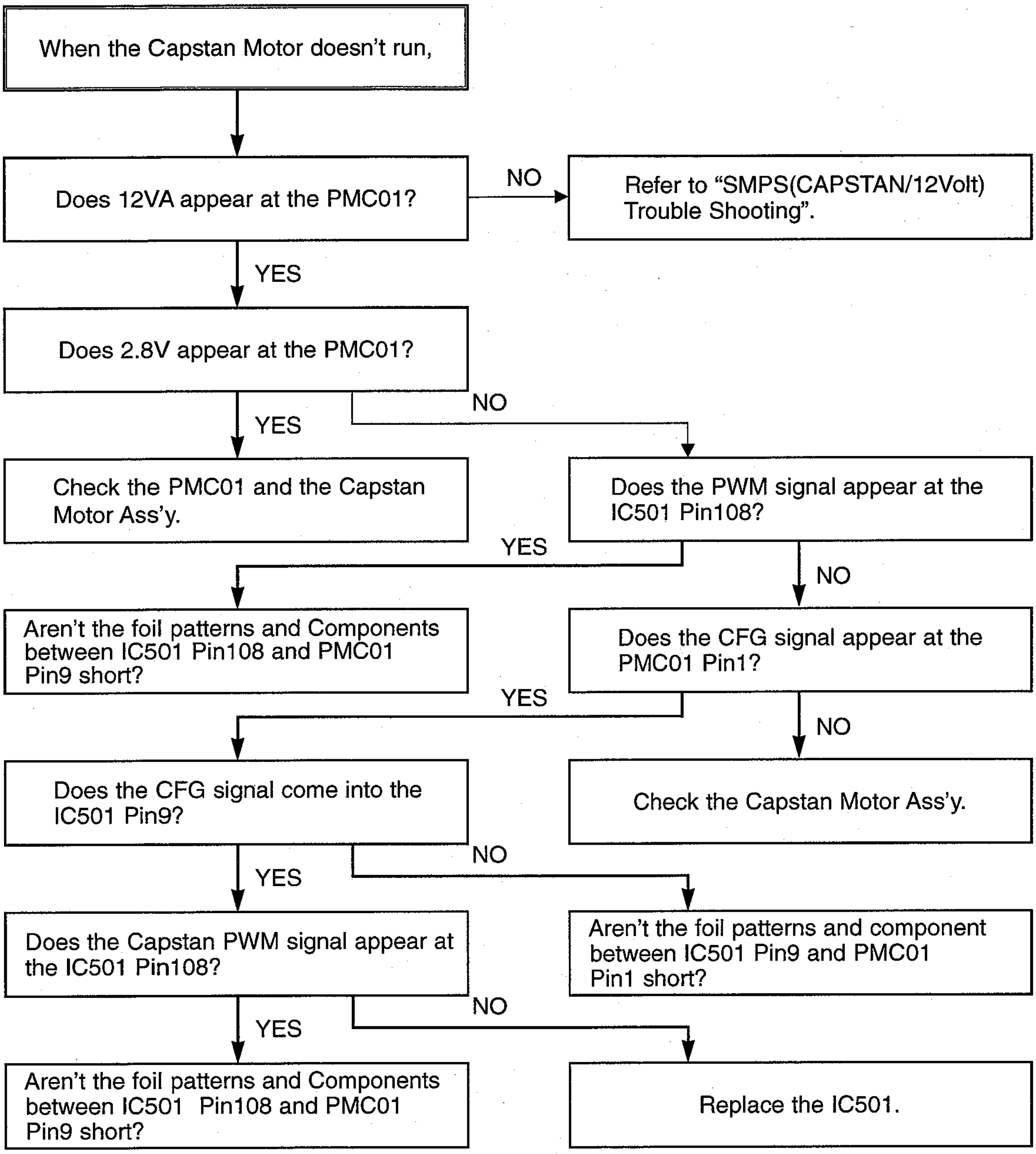
### (1) Unstable Video in PB MODE


Unstable Video in PB Mode.
YES
Does the Noise level of the screen change periodically?
YES
Do the CTL pulses appear at the IC501 Pin8?
NO
Is adjusting the height of the CTL Head accurate?
NO
Readjust the height of the CTL Head.
YES
Does the CFG waveform appear at the IC501 Pin9?
YES
On tracking do the CTL pulses move?
NO
Replace the IC501.
YES
Does the Video Envelope waveform appear at the IC501 Pin24?
NO
Refer to "When the Y signal doesn't appear on the screen in PB Mode".
YES
Replace the IC501.

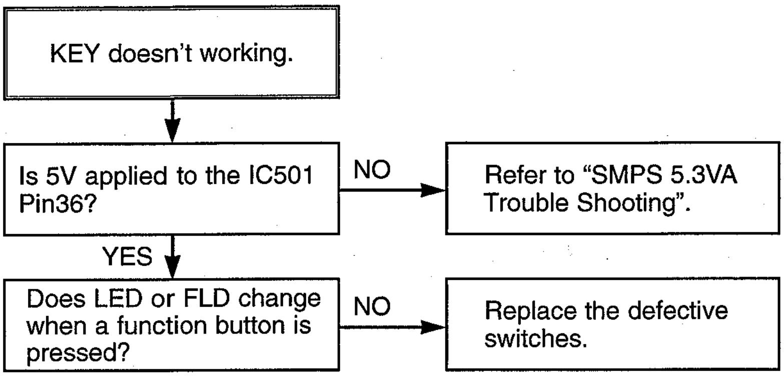
### (2) When the Drum Motor doesn't run.


When the Drum Motor doesn't run,
Does 12V appear at the PMC01 Pin8?
NO
Refer to "(2) No 12VA of Power section"
YES
Does 2.8V appear at the PMC01 Pin12?
NO
Do the Drum PWM Pulses appear at the IC501 Pin107?
NO
Do the DFG Pulses appear at the PMC01 Pin11?
NO
Replace the Cap M.
YES
YES
Aren't the foil patterns and the Components between IC501 Pin107 and PMC01 Pin12 short?
YES
Check the connector (PMC01) and the Drum Motor Ass'y.
Do the DFG Pulses appear at the IC501 Pin104?
NO
Aren't the foil patterns and the Components between IC501 Pin104 and PMC01 Pin11 short?
YES
Do the Drum PWM Pulses appear at the IC501 Pin107?
NO
Replace the IC501.
YES
Aren't the connecting patterns and the Components between IC501 Pin107 and PMC01 Pin12 short?

### (3) When the Capstan Motor doesn't run,

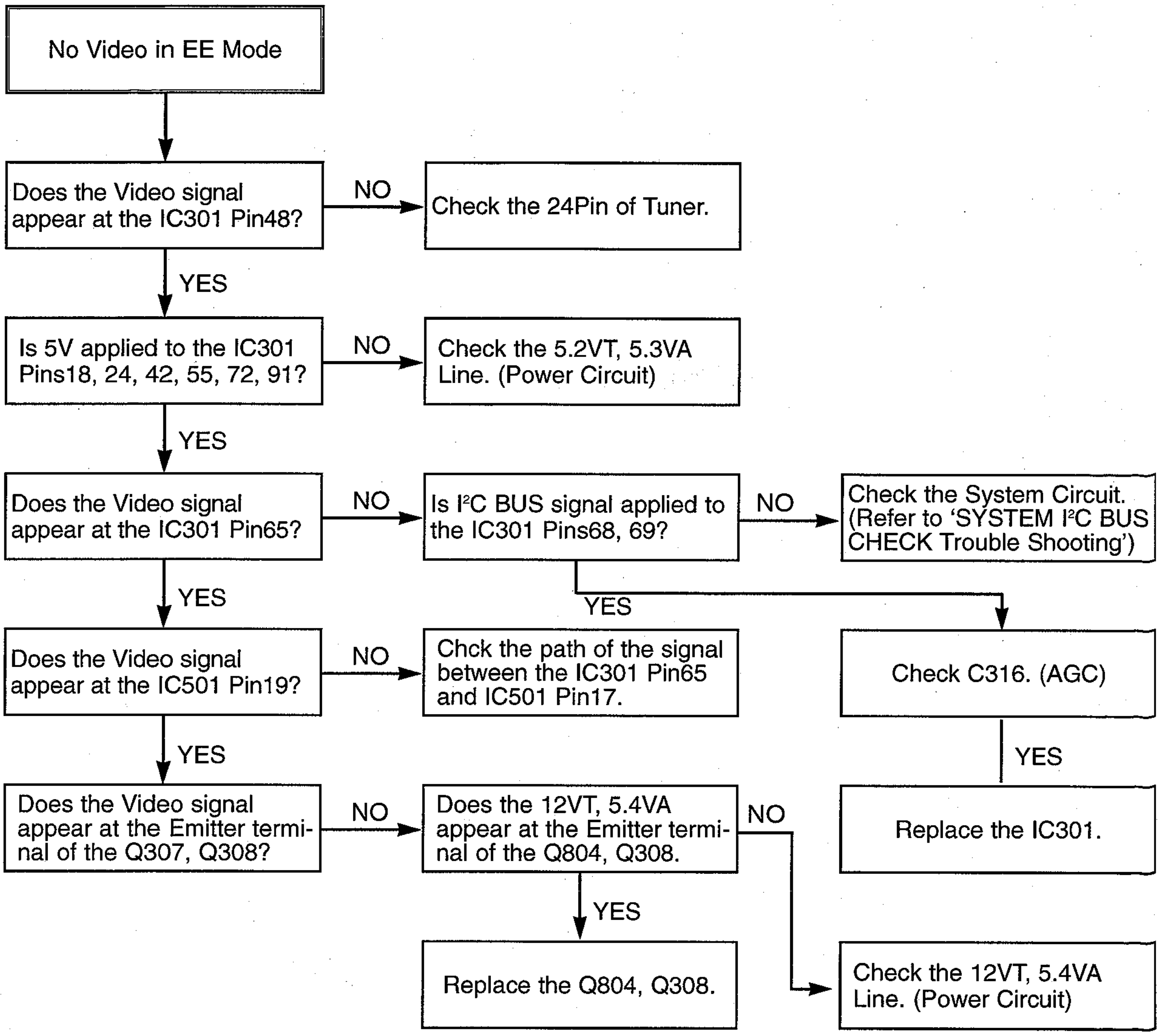

When the Capstan Motor doesn't run,
Does 12VA appear at the PMC01?
NO
Refer to "SMPS(CAPSTAN/12Volt) Trouble Shooting".
YES
Does 2.8V appear at the PMC01?
YES
NO
Check the PMC01 and the Capstan Motor Ass'y.
Does the PWM signal appear at the IC501 Pin108?
YES
NO
Aren't the foil patterns and Components between IC501 Pin108 and PMC01 Pin9 short?
Does the CFG signal appear at the PMC01 Pin1?
YES
NO
Does the CFG signal come into the IC501 Pin9?
Check the Capstan Motor Ass'y.
NO
YES
Does the Capstan PWM signal appear at the IC501 Pin108?
Aren't the foil patterns and component between IC501 Pin9 and PMC01 Pin1 short?
NO
YES
Aren't the foil patterns and Components between IC501 Pin108 and PMC01 Pin9 short?
Replace the IC501.

## (4) KEY doesn't working

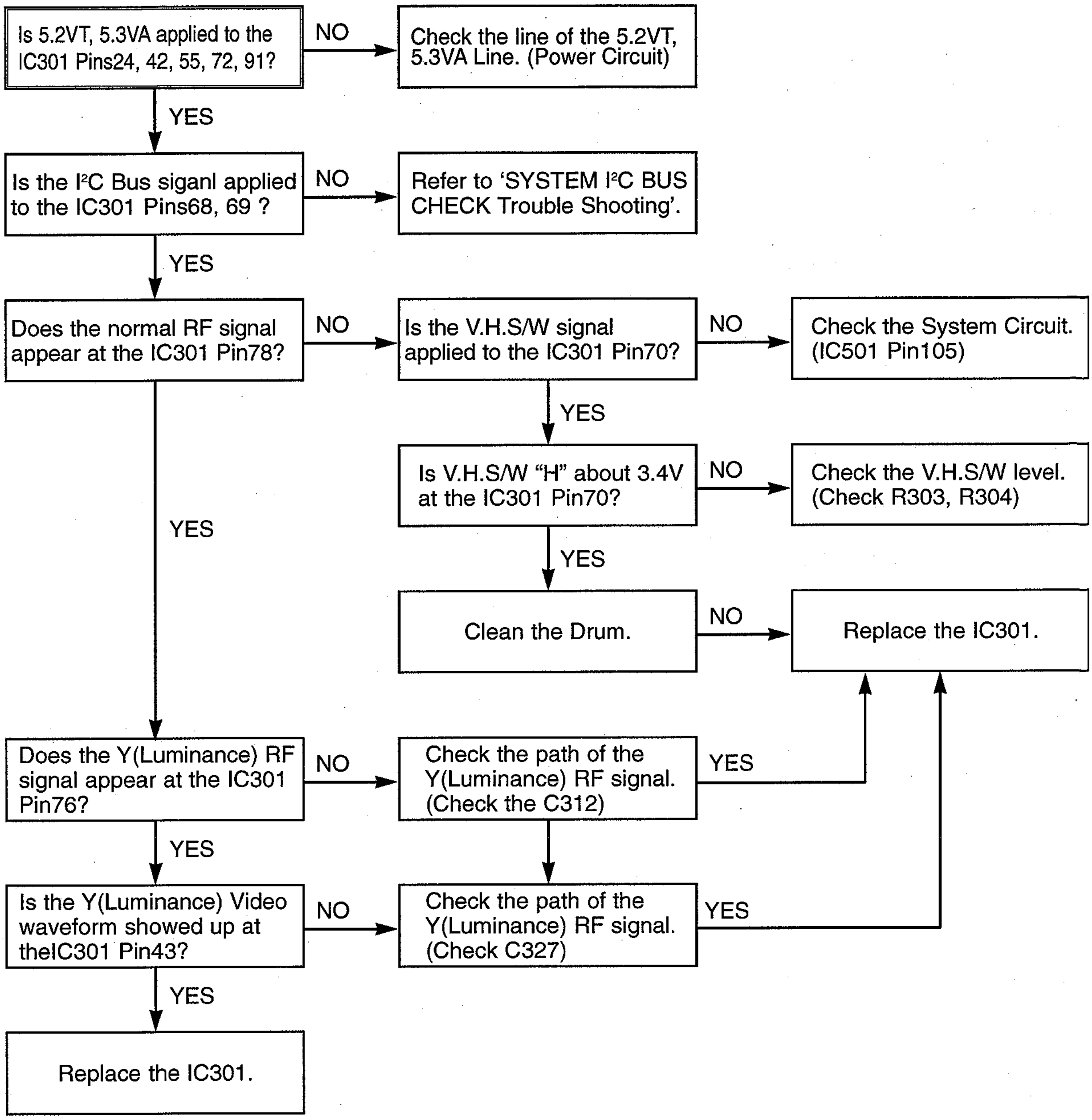

KEY doesn't working.
Is 5V applied to the IC501 Pin36?
NO
Refer to "SMPS 5.3VA Trouble Shooting".
YES
Does LED or FLD change when a function button is pressed?
NO
Replace the defective switches.

## 4. Y/C CIRCUIT

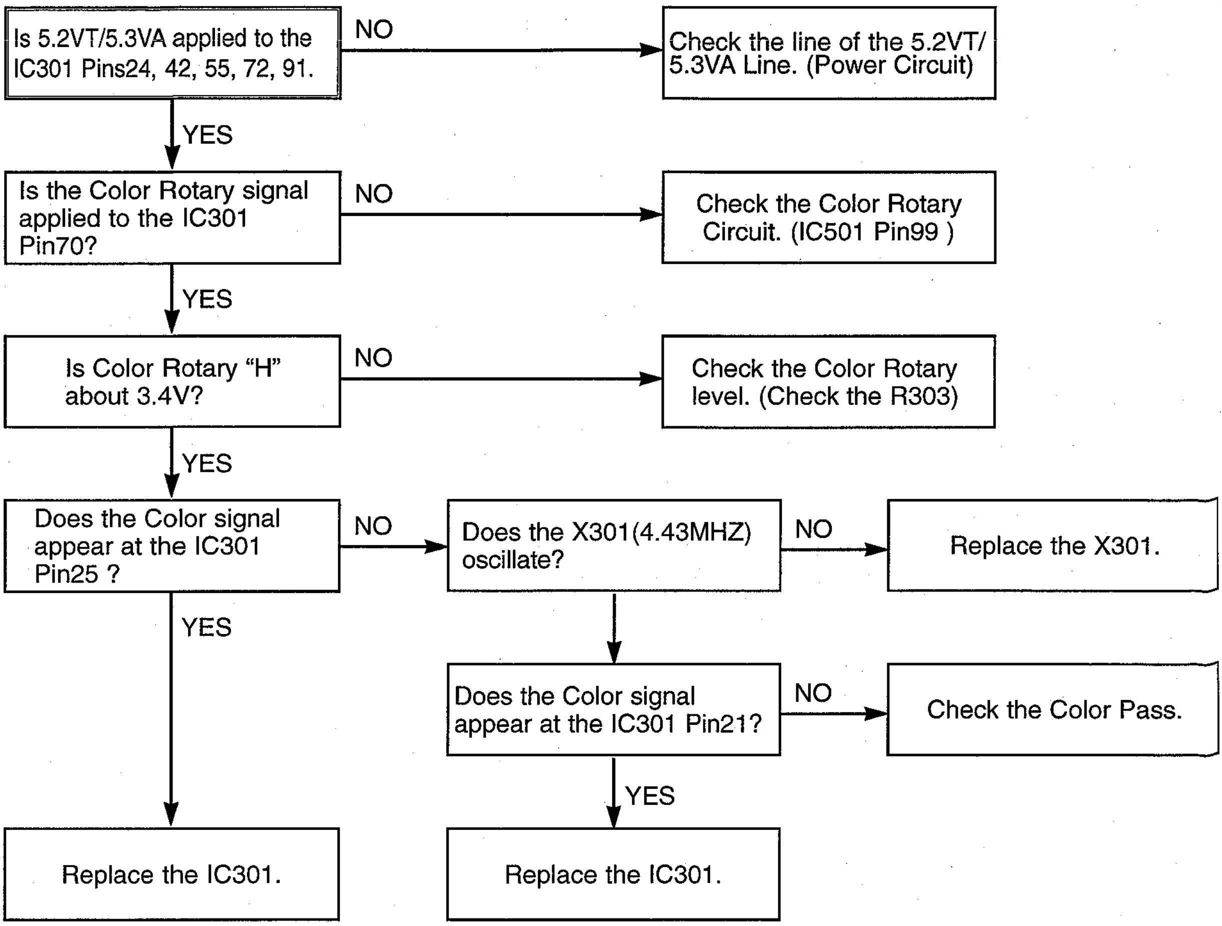
### (1) No Video in EE Mode,


No Video in EE Mode
Does the Video signal appear at the IC301 Pin48?
NO
Check the 24Pin of Tuner.
YES
Is 5V applied to the IC301 Pins18, 24, 42, 55, 72, 91?
NO
Check the 5.2VT, 5.3VA Line. (Power Circuit)
YES
Does the Video signal appear at the IC301 Pin65?
NO
Is I²C BUS signal applied to the IC301 Pins68, 69?
NO
Check the System Circuit. (Refer to 'SYSTEM I²C BUS CHECK Trouble Shooting')
YES
YES
Does the Video signal appear at the IC501 Pin19?
NO
Chck the path of the signal between the IC301 Pin65 and IC501 Pin17.
Check C316. (AGC)
YES
YES
Does the Video signal appear at the Emitter terminal of the Q307, Q308?
NO
Does the 12VT, 5.4VA appear at the Emitter terminal of the Q804, Q308.
NO
Replace the IC301.
YES
Replace the Q804, Q308.
Check the 12VT, 5.4VA Line. (Power Circuit)

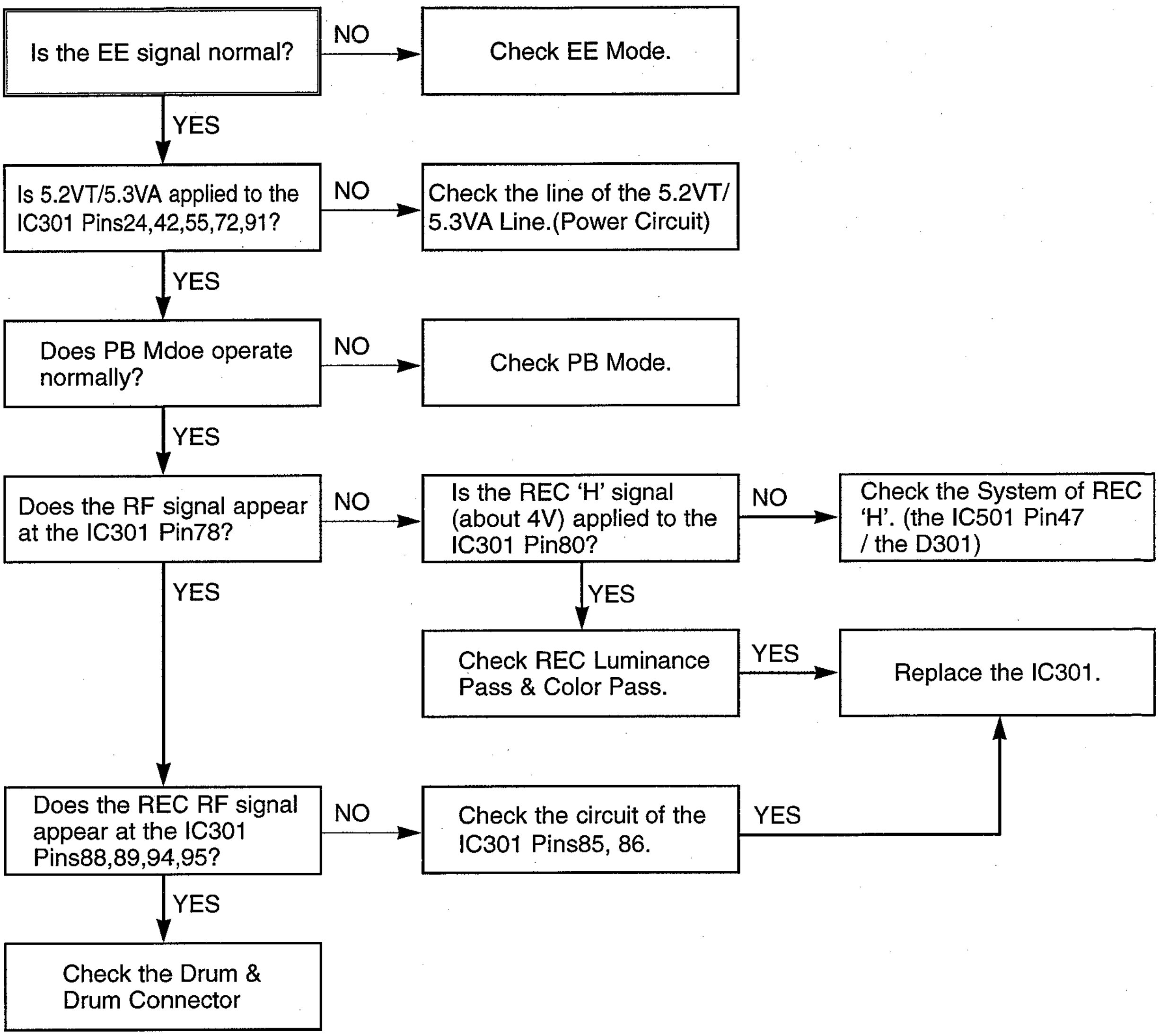
(2) When the Y(Luminance) signal doesn't appear on the screen in PB Mode,


Is 5.2VT, 5.3VA applied to the IC301 Pins24, 42, 55, 72, 91?
NO
Check the line of the 5.2VT, 5.3VA Line. (Power Circuit)
YES
Is the I²C Bus siganl applied to the IC301 Pins68, 69 ?
NO
Refer to 'SYSTEM I²C BUS CHECK Trouble Shooting'.
YES
Does the normal RF signal appear at the IC301 Pin78?
NO
Is the V.H.S/W signal applied to the IC301 Pin70?
NO
Check the System Circuit. (IC501 Pin105)
YES
Is V.H.S/W "H" about 3.4V at the IC301 Pin70?
NO
Check the V.H.S/W level. (Check R303, R304)
YES
Clean the Drum.
NO
Replace the IC301.
YES
Does the Y(Luminance) RF signal appear at the IC301 Pin76?
NO
Check the path of the Y(Luminance) RF signal. (Check the C312)
YES
YES
Is the Y(Luminance) Video waveform showed up at theIC301 Pin43?
NO
Check the path of the Y(Luminance) RF signal. (Check C327)
YES
YES
Replace the IC301.

(3) When the C(Color) signal doesn't appear on the screen in PB Mode,

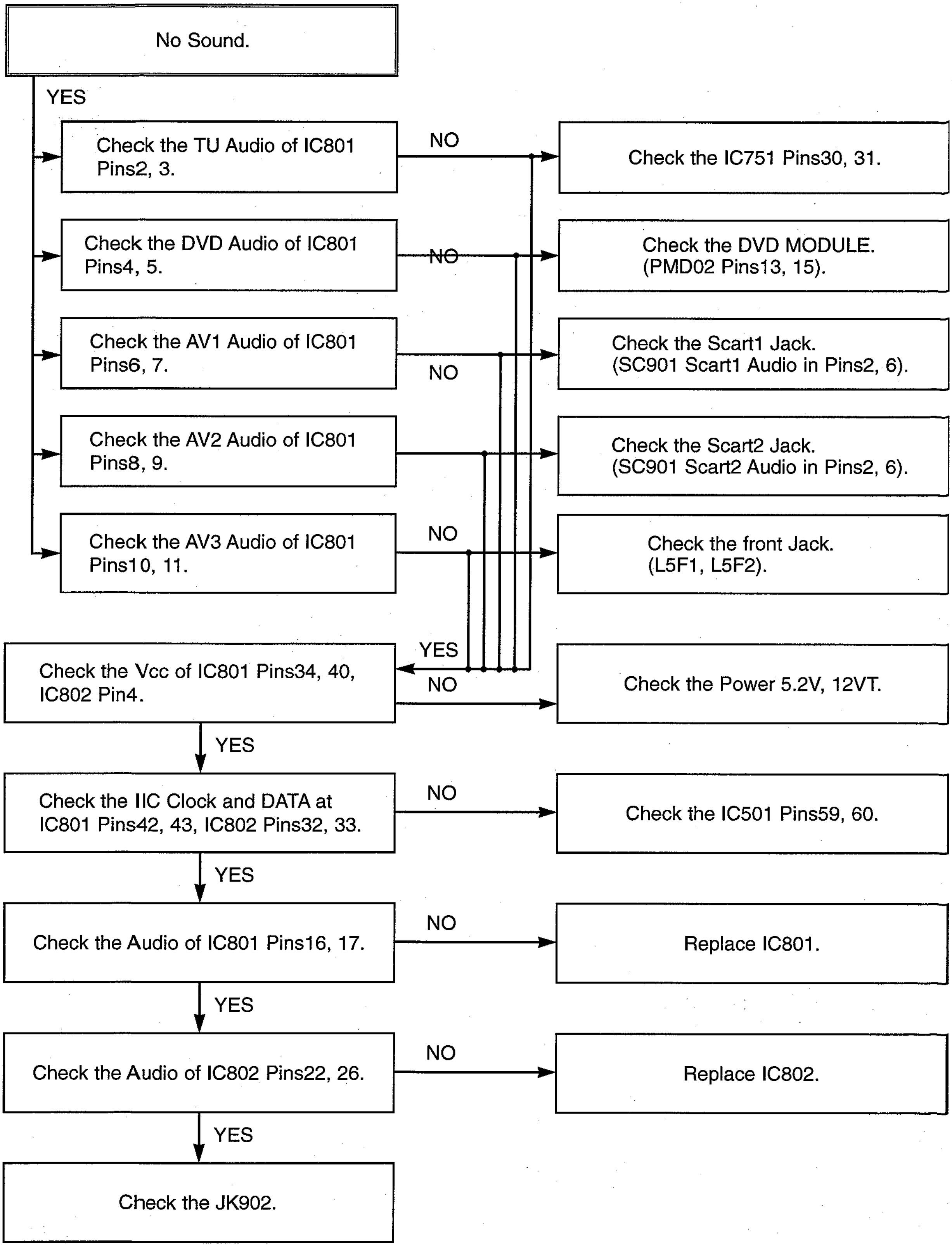

Is 5.2VT/5.3VA applied to the IC301 Pins24, 42, 55, 72, 91.
NO
Check the line of the 5.2VT/ 5.3VA Line. (Power Circuit)
YES
Is the Color Rotary signal applied to the IC301 Pin70?
NO
Check the Color Rotary Circuit. (IC501 Pin99 )
YES
Is Color Rotary "H" about 3.4V?
NO
Check the Color Rotary level. (Check the R303)
YES
Does the Color signal appear at the IC301 Pin25 ?
NO
Does the X301(4.43MHZ) oscillate?
NO
Replace the X301.
YES
Does the Color signal appear at the IC301 Pin21?
NO
Check the Color Pass.
YES
Replace the IC301.
Replace the IC301.

(4) When the Video signal doesn't appear on the screen in REC Mode,

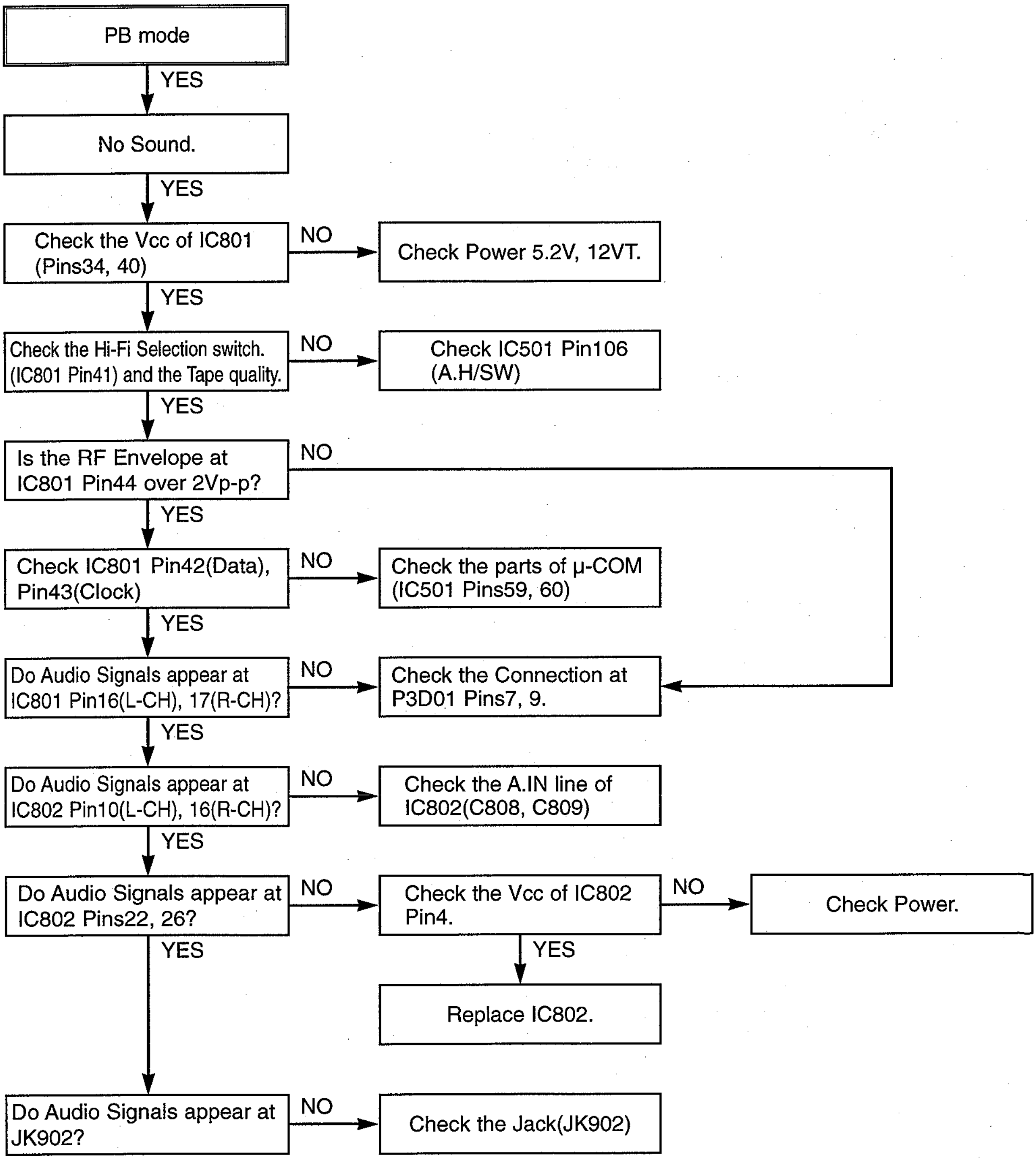

Is the EE signal normal?
NO
Check EE Mode.
YES
Is 5.2VT/5.3VA applied to the IC301 Pins24,42,55,72,91?
NO
Check the line of the 5.2VT/ 5.3VA Line.(Power Circuit)
YES
Does PB Mdoe operate normally?
NO
Check PB Mode.
YES
Does the RF signal appear at the IC301 Pin78?
NO
Is the REC 'H' signal (about 4V) applied to the IC301 Pin80?
NO
Check the System of REC 'H'. (the IC501 Pin47 / the D301)
YES
YES
Check REC Luminance Pass & Color Pass.
YES
Replace the IC301.
Does the REC RF signal appear at the IC301 Pins88,89,94,95?
NO
Check the circuit of the IC301 Pins85, 86.
YES
YES
Check the Drum & Drum Connector

## 5. Hi-Fi CIRCUIT

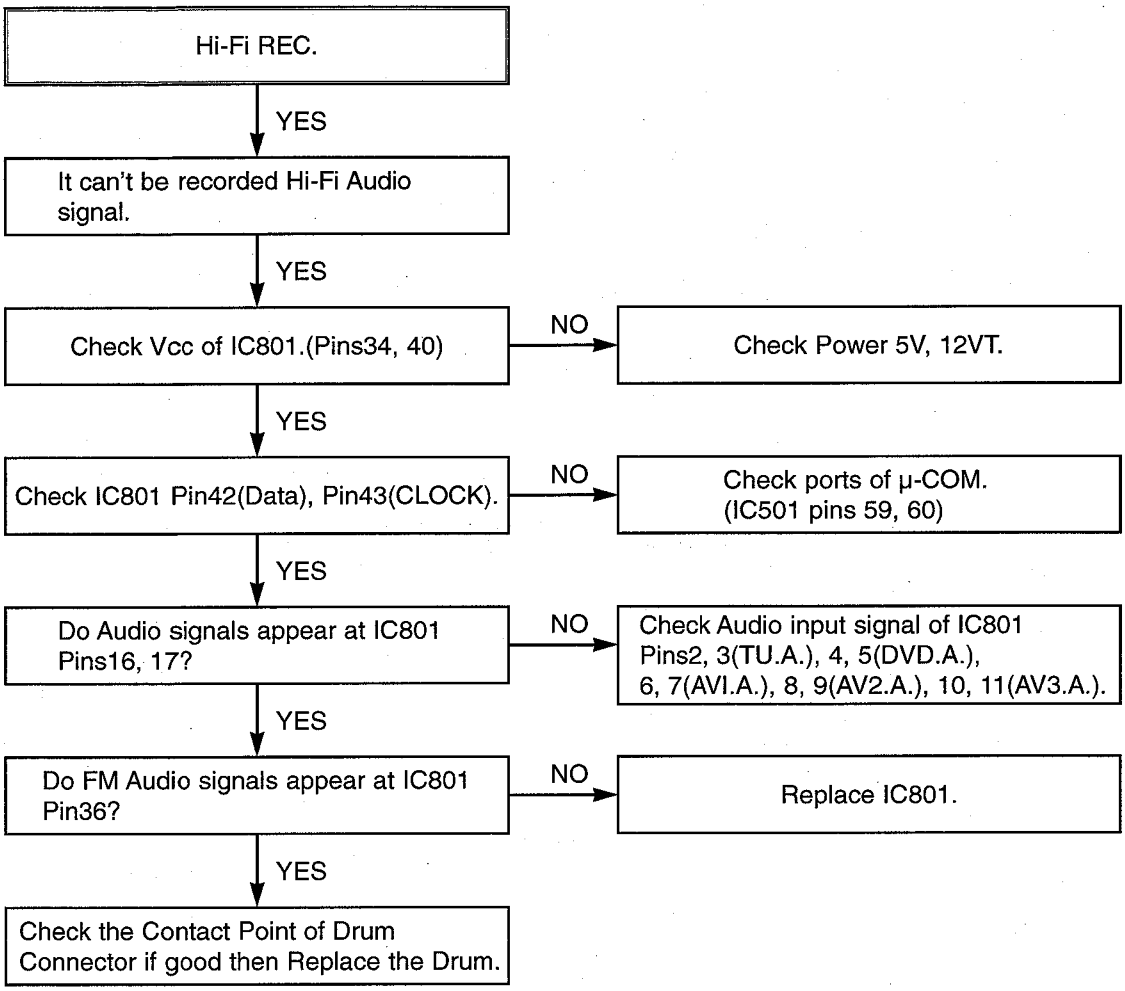
### (A) No Sound(EE Mode)


No Sound.
YES
Check the TU Audio of IC801 Pins2, 3.
NO
Check the IC751 Pins30, 31.
Check the DVD Audio of IC801 Pins4, 5.
NO
Check the DVD MODULE. (PMD02 Pins13, 15).
Check the AV1 Audio of IC801 Pins6, 7.
NO
Check the Scart1 Jack. (SC901 Scart1 Audio in Pins2, 6).
Check the AV2 Audio of IC801 Pins8, 9.
Check the Scart2 Jack. (SC901 Scart2 Audio in Pins2, 6).
Check the AV3 Audio of IC801 Pins10, 11.
NO
Check the front Jack. (L5F1, L5F2).
YES
Check the Vcc of IC801 Pins34, 40, IC802 Pin4.
NO
Check the Power 5.2V, 12VT.
YES
Check the IIC Clock and DATA at IC801 Pins42, 43, IC802 Pins32, 33.
NO
Check the IC501 Pins59, 60.
YES
Check the Audio of IC801 Pins16, 17.
NO
Replace IC801.
YES
Check the Audio of IC802 Pins22, 26.
NO
Replace IC802.
YES
Check the JK902.

## (B) Hi-Fi Playback

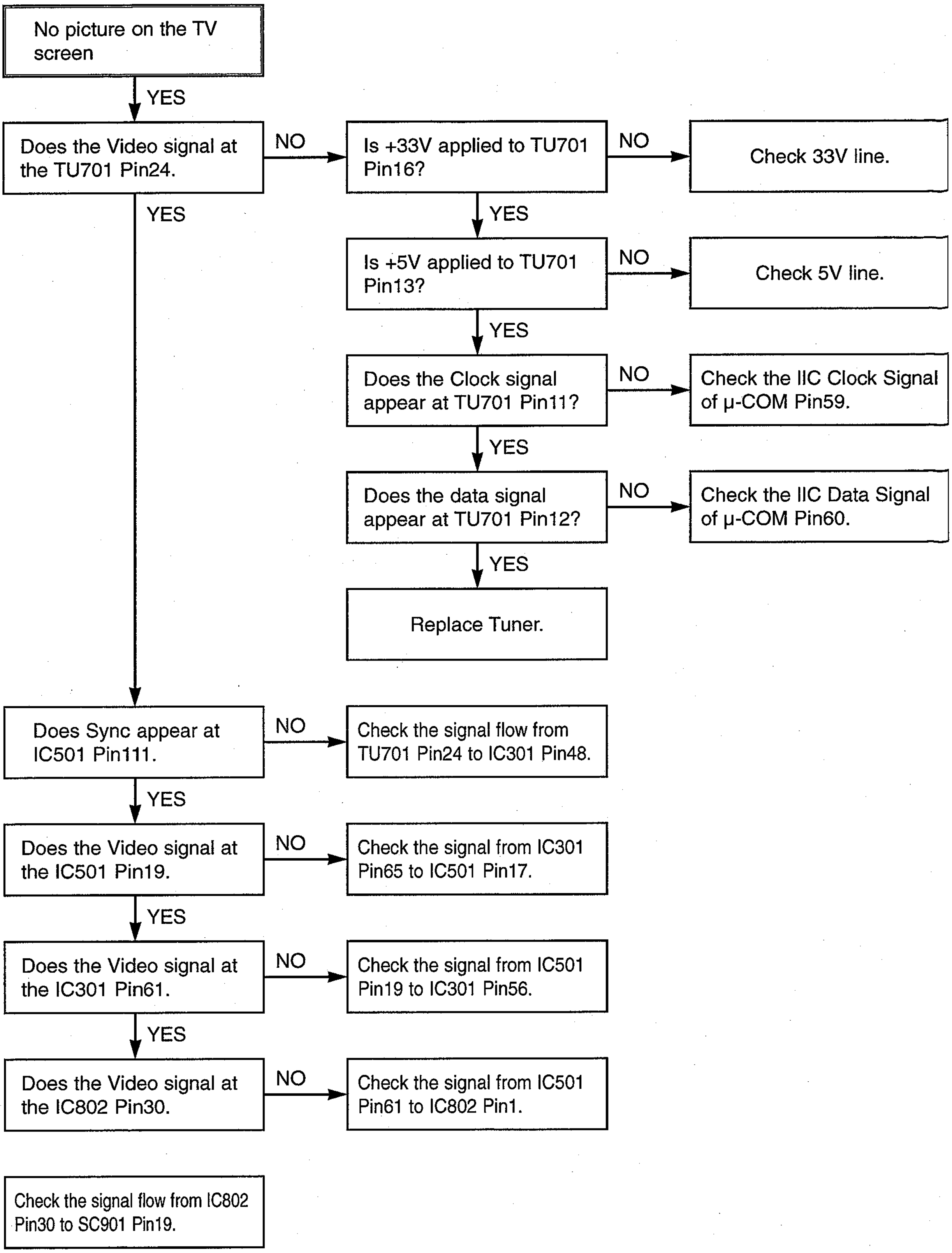

PB mode
YES
No Sound.
YES
Check the Vcc of IC801 (Pins34, 40)
NO
Check Power 5.2V, 12VT.
YES
Check the Hi-Fi Selection switch. (IC801 Pin41) and the Tape quality.
NO
Check IC501 Pin106 (A.H/SW)
YES
Is the RF Envelope at IC801 Pin44 over 2Vp-p?
NO
YES
Check IC801 Pin42(Data), Pin43(Clock)
NO
Check the parts of µ-COM (IC501 Pins59, 60)
YES
Do Audio Signals appear at IC801 Pin16(L-CH), 17(R-CH)?
NO
Check the Connection at P3D01 Pins7, 9.
YES
Do Audio Signals appear at IC802 Pin10(L-CH), 16(R-CH)?
NO
Check the A.IN line of IC802(C808, C809)
YES
Do Audio Signals appear at IC802 Pins22, 26?
NO
Check the Vcc of IC802 Pin4.
NO
Check Power.
YES
Replace IC802.
YES
Do Audio Signals appear at JK902?
NO
Check the Jack(JK902)

(C)

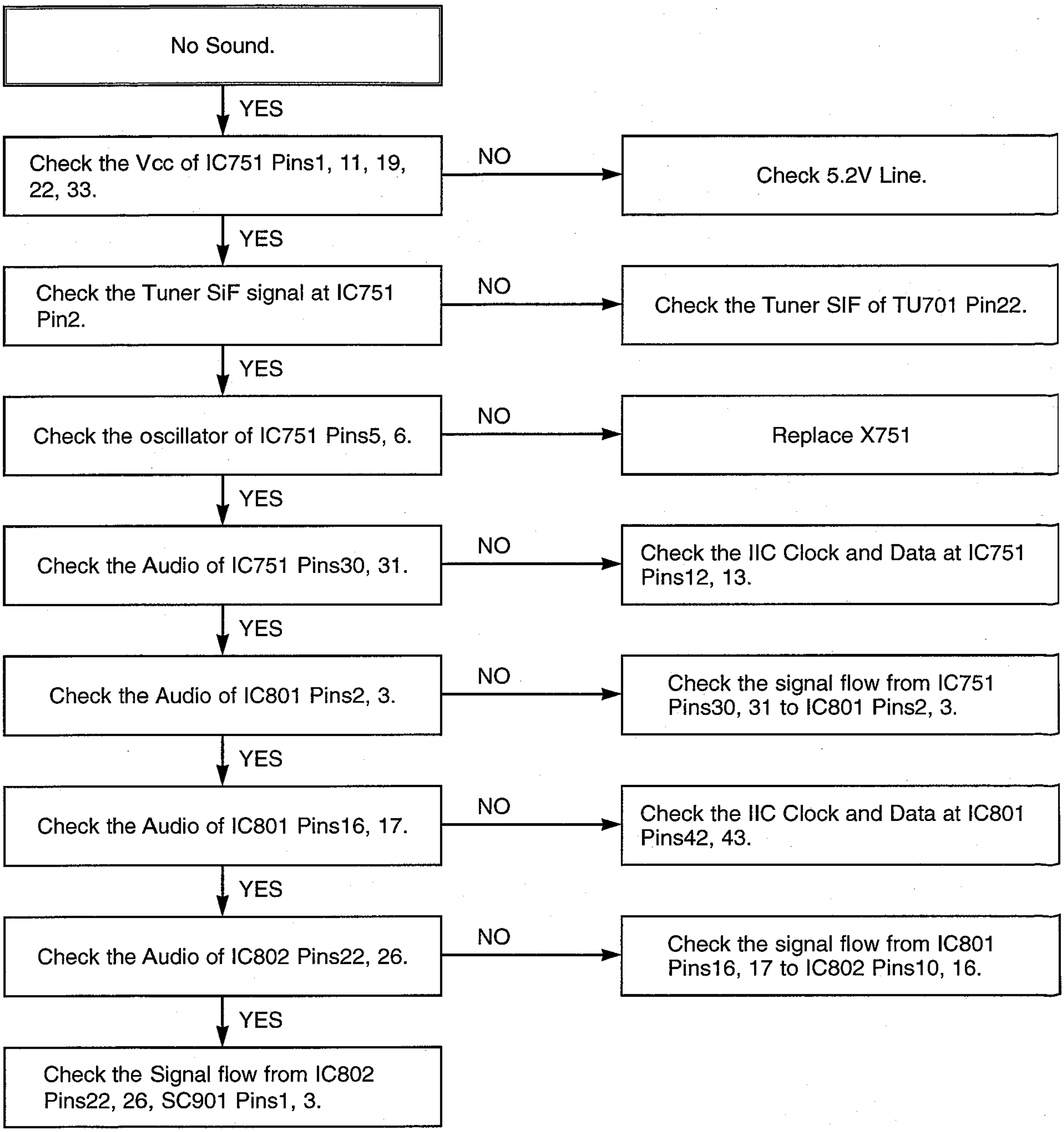

Hi-Fi REC.
YES
It can't be recorded Hi-Fi Audio signal.
YES
Check Vcc of IC801.(Pins34, 40)
NO
Check Power 5V, 12VT.
YES
Check IC801 Pin42(Data), Pin43(CLOCK).
NO
Check ports of μ-COM. (IC501 pins 59, 60)
YES
Do Audio signals appear at IC801 Pins16, 17?
NO
Check Audio input signal of IC801 Pins2, 3(TU.A.), 4, 5(DVD.A.), 6, 7(AVI.A.), 8, 9(AV2.A.), 10, 11(AV3.A.).
YES
Do FM Audio signals appear at IC801 Pin36?
NO
Replace IC801.
YES
Check the Contact Point of Drum Connector if good then Replace the Drum.

## 6. Tuner/IF CIRCUIT

### (A) No Picture on the TV screen


No picture on the TV screen
YES
Does the Video signal at the TU701 Pin24.
NO
Is +33V applied to TU701 Pin16?
NO
Check 33V line.
YES
Is +5V applied to TU701 Pin13?
NO
Check 5V line.
YES
Does the Clock signal appear at TU701 Pin11?
NO
Check the IIC Clock Signal of μ-COM Pin59.
YES
Does the data signal appear at TU701 Pin12?
NO
Check the IIC Data Signal of μ-COM Pin60.
YES
Replace Tuner.
YES
Does Sync appear at IC501 Pin111.
NO
Check the signal flow from TU701 Pin24 to IC301 Pin48.
YES
Does the Video signal at the IC501 Pin19.
NO
Check the signal from IC301 Pin65 to IC501 Pin17.
YES
Does the Video signal at the IC301 Pin61.
NO
Check the signal from IC501 Pin19 to IC301 Pin56.
YES
Does the Video signal at the IC802 Pin30.
NO
Check the signal from IC501 Pin61 to IC802 Pin1.
Check the signal flow from IC802 Pin30 to SC901 Pin19.

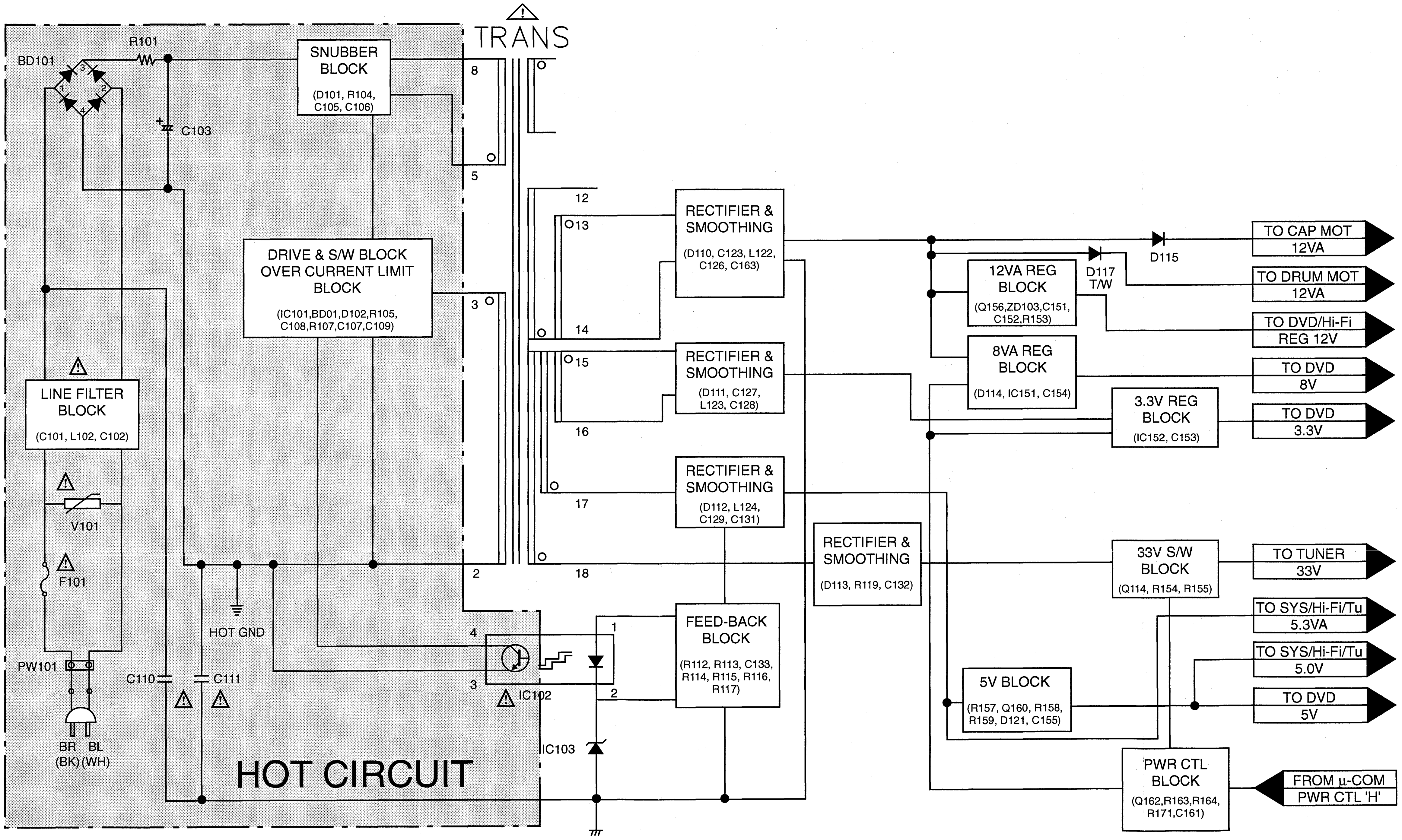
## (B) No Sound


No Sound.
YES
Check the Vcc of IC751 Pins1, 11, 19, 22, 33.
NO
Check 5.2V Line.
YES
Check the Tuner SiF signal at IC751 Pin2.
NO
Check the Tuner SIF of TU701 Pin22.
YES
Check the oscillator of IC751 Pins5, 6.
NO
Replace X751
YES
Check the Audio of IC751 Pins30, 31.
NO
Check the IIC Clock and Data at IC751 Pins12, 13.
YES
Check the Audio of IC801 Pins2, 3.
NO
Check the signal flow from IC751 Pins30, 31 to IC801 Pins2, 3.
YES
Check the Audio of IC801 Pins16, 17.
NO
Check the IIC Clock and Data at IC801 Pins42, 43.
YES
Check the Audio of IC802 Pins22, 26.
NO
Check the signal flow from IC801 Pins16, 17 to IC802 Pins10, 16.
YES
Check the Signal flow from IC802 Pins22, 26, SC901 Pins1, 3.

# MEMO

# BLOCK DIAGRAMS

## 1. POWER(SMPS) BLOCK DIAGRAM

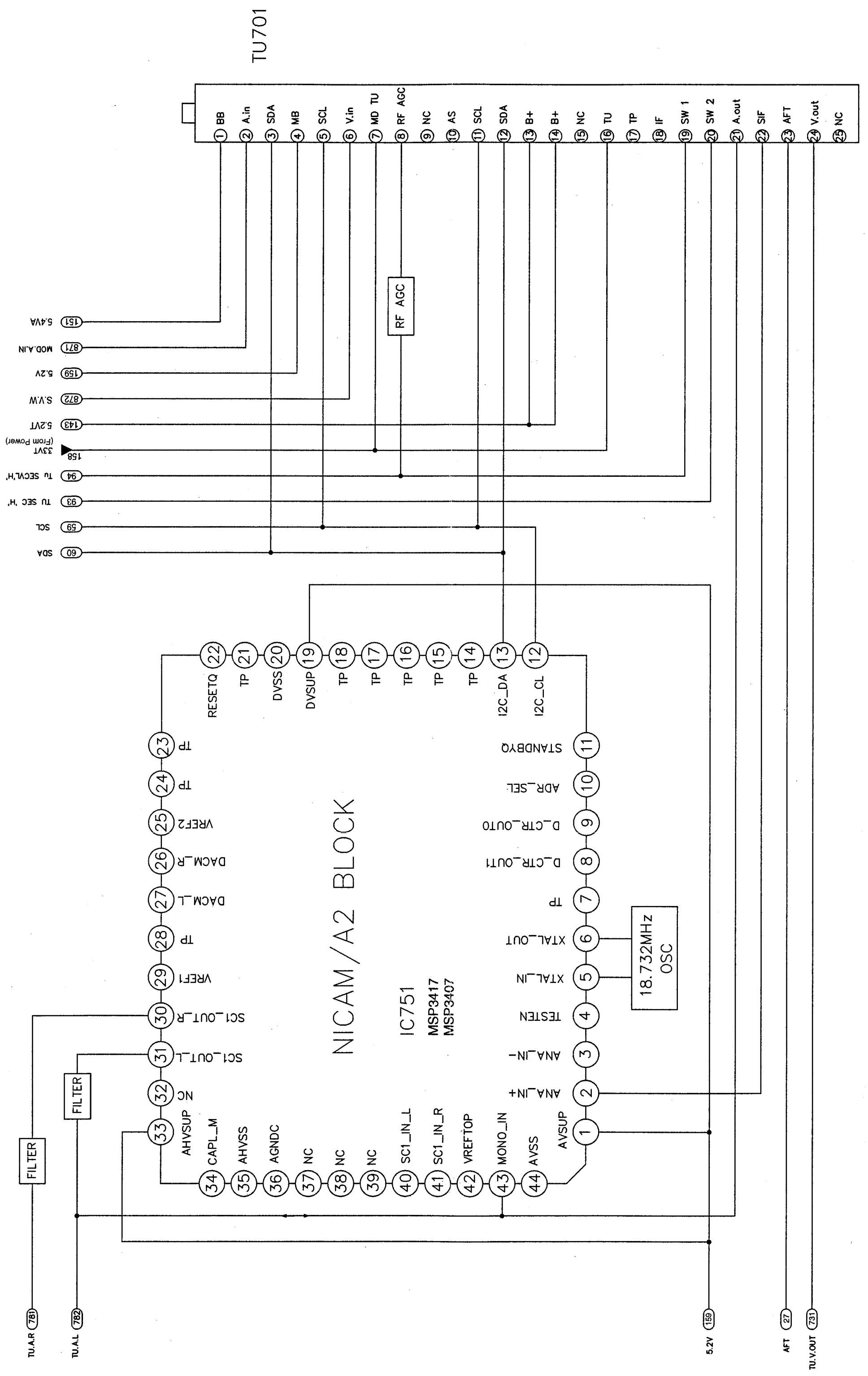

TRANS
BD101
R101
C103
SNUBBER BLOCK
(D101, R104, C105, C106)
DRIVE & S/W BLOCK OVER CURRENT LIMIT BLOCK
(IC101,BD01,D102,R105, C108,R107,C107,C109)
LINE FILTER BLOCK
(C101, L102, C102)
V101
F101
PW101
BR BL
(BK) (WH)
C110
C111
HOT GND
IC102
IC103
HOT CIRCUIT
8
5
3
2
4
3
1
2
12
13
14
15
16
17
18
RECTIFIER & SMOOTHING
(D110, C123, L122, C126, C163)
RECTIFIER & SMOOTHING
(D111, C127, L123, C128)
RECTIFIER & SMOOTHING
(D112, L124, C129, C131)
RECTIFIER & SMOOTHING
(D113, R119, C132)
FEED-BACK BLOCK
(R112, R113, C133, R114, R115, R116, R117)
D115
D117 T/W
12VA REG BLOCK
(Q156,ZD103,C151, C152,R153)
8VA REG BLOCK
(D114, IC151, C154)
3.3V REG BLOCK
(IC152, C153)
33V S/W BLOCK
(Q114, R154, R155)
5V BLOCK
(R157, Q160, R158, R159, D121, C155)
PWR CTL BLOCK
(Q162,R163,R164, R171,C161)
TO CAP MOT 12VA
TO DRUM MOT 12VA
TO DVD/Hi-Fi REG 12V
TO DVD 8V
TO DVD 3.3V
TO TUNER 33V
TO SYS/Hi-Fi/Tu 5.3VA
TO SYS/Hi-Fi/Tu 5.0V
TO DVD 5V
FROM μ-COM PWR CTL 'H'

**NOTES :** ⏚ Symbol denotes AC ground.

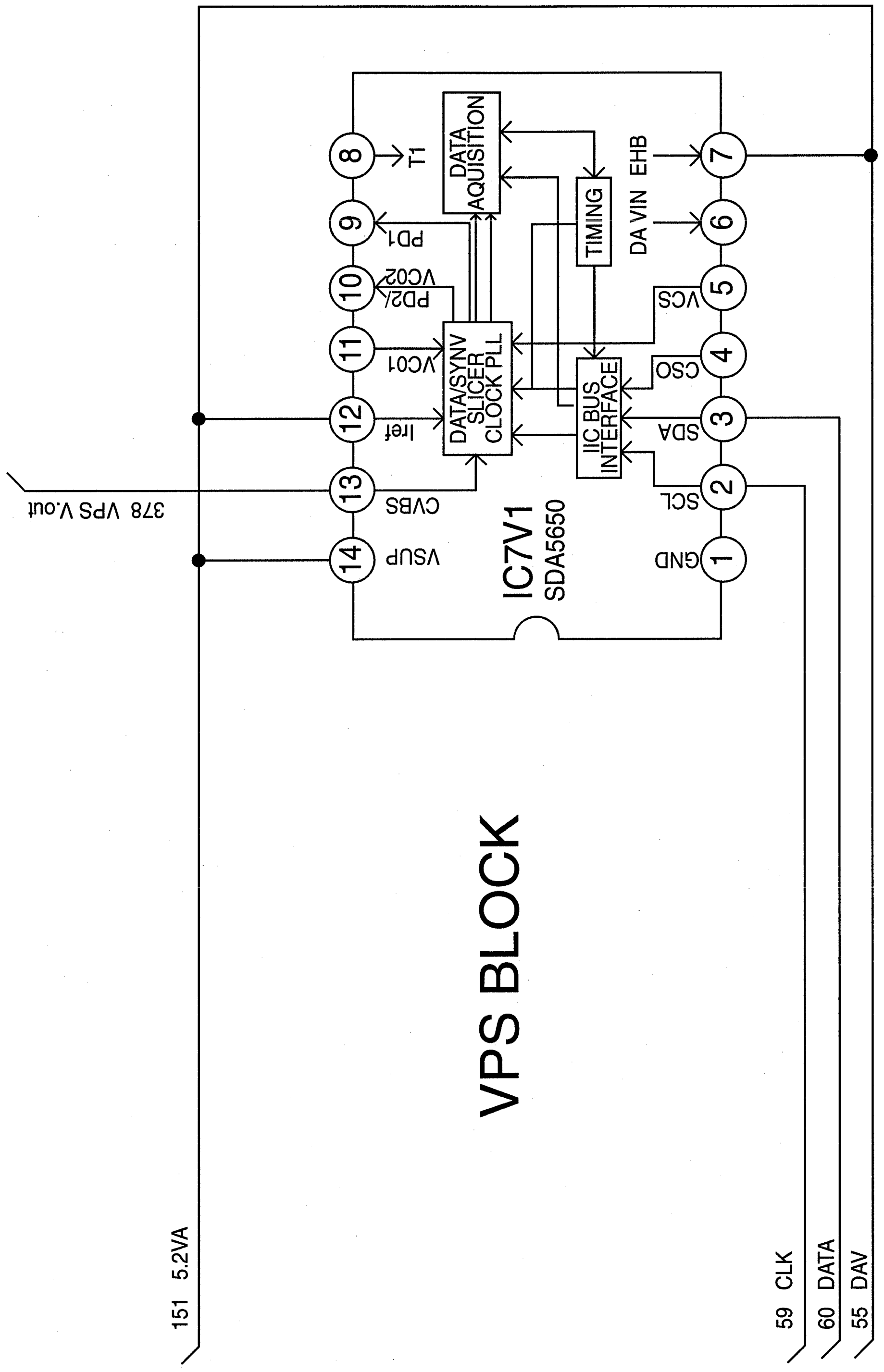
⫨ Symbol denotes DC chassis ground.

COMBI SCART
VC6's

## 2. Tu/IF, NICAM & A2 BLOCK DIAGRAM


TU701
1 BB
2 A.in
3 SDA
4 MB
5 SCL
6 V.in
7 MD TU
8 RF AGC
9 NC
10 AS
11 SCL
12 SDA
13 B+
14 B+
15 NC
16 TU
17 TP
18 IF
19 SW 1
20 SW 2
21 A.out
22 SIF
23 AFT
24 V.out
25 NC
RF AGC
151 5.4VA
871 MOD.A.IN
159 5.2V
872 S.V.W
143 5.2VT
158 3.3VT (From Power)
94 Tu SECVL'H'
93 TU SEC 'H'
59 SCL
60 SDA
NICAM/A2 BLOCK
IC751
MSP3417
MSP3407
18.732MHz OSC
1 AVSUP
2 ANA_IN+
3 ANA_IN-
4 TESTEN
5 XTAL_IN
6 XTAL_OUT
7 TP
8 D_CTR_OUT1
9 D_CTR_OUT0
10 ADR_SEL
11 STANDBYQ
12 I2C_CL
13 I2C_DA
14 TP
15 TP
16 TP
17 TP
18 TP
19 DVSUP
20 DVSS
21 TP
22 RESETQ
23 TP
24 TP
25 VREF2
26 DACM_R
27 DACM_L
28 TP
29 VREF1
30 SC1_OUT_R
31 SC1_OUT_L
32 NC
33 AHVSUP
34 CAPL_M
35 AHVSS
36 AGNDC
37 NC
38 NC
39 NC
40 SC1_IN_L
41 SC1_IN_R
42 VREFTOP
43 MONO_IN
44 AVSS
FILTER
FILTER
781 TU.A.R
782 TU.A.L
159 5.2V
27 AFT
731 TU.V.OUT

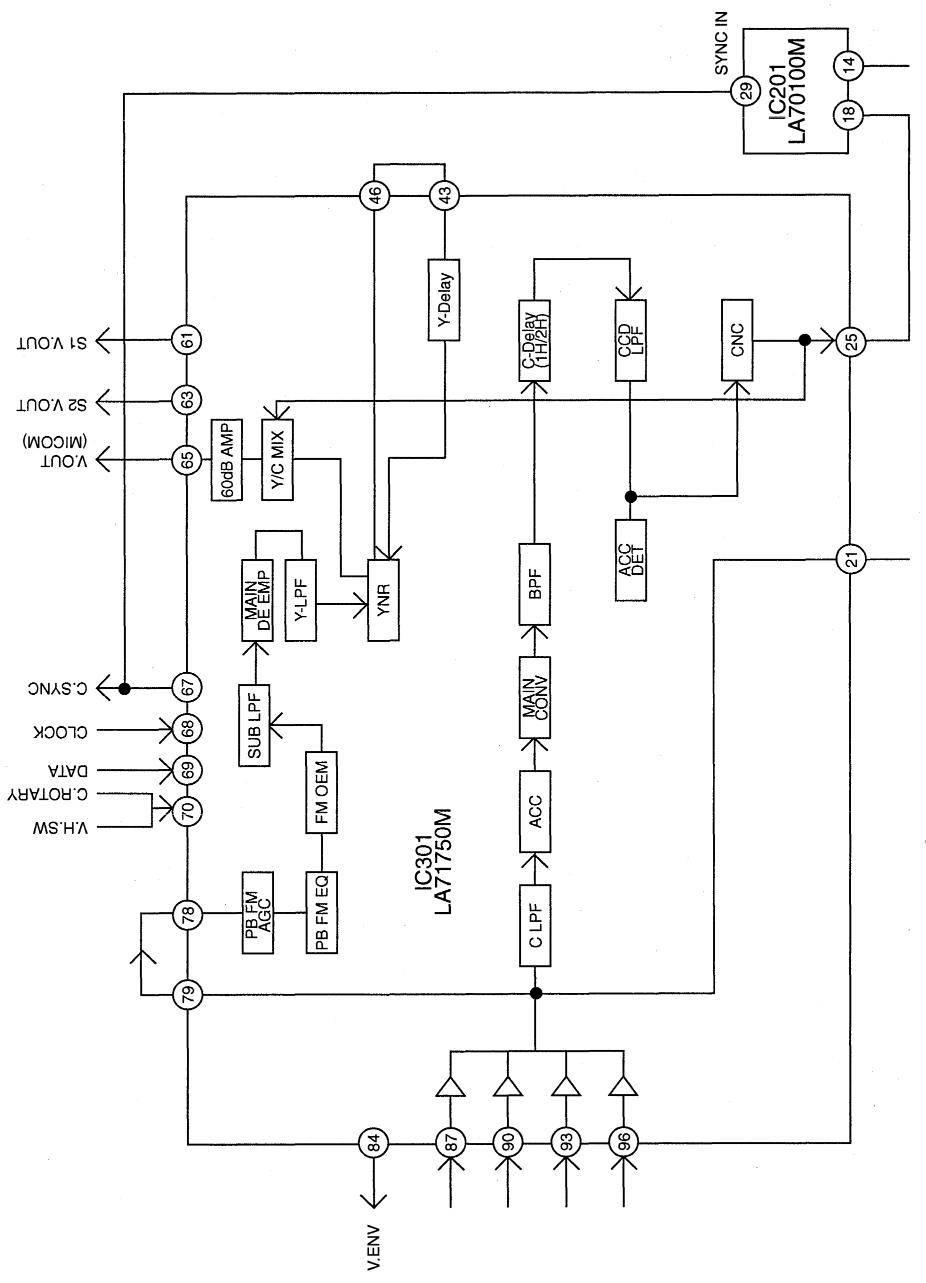
## 3. VPS BLOCK DIAGRAM


DATA AQUISITION
TIMING
DATA/SYNV SLICER CLOCK PLL
IIC BUS INTERFACE
1 GND
2 SCL
3 SDA
4 CSO
5 VCS
6 DA VIN
7 EHB
8 T1
9 PD1
10 VCO2 PD2
11 VCO1
12 Iref
13 CVBS
14 VSUP
IC7V1
SDA5650
378 VPS V.out
VPS BLOCK
151 5.2VA
59 CLK
60 DATA
55 DAV

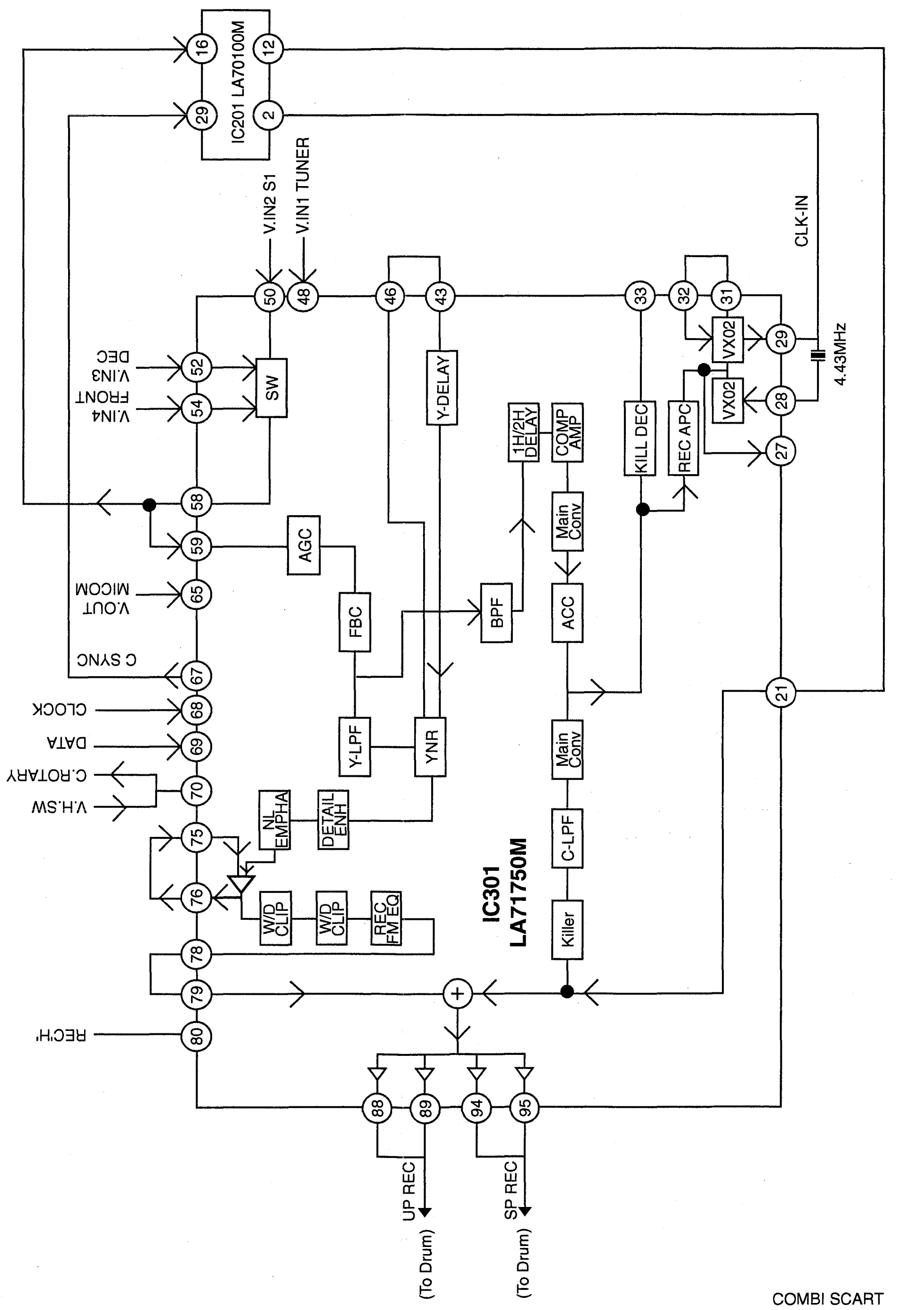
COMBI SCART
VC6's

## 4. Y/C BLOCK DIAGRAM

(PB MODE)

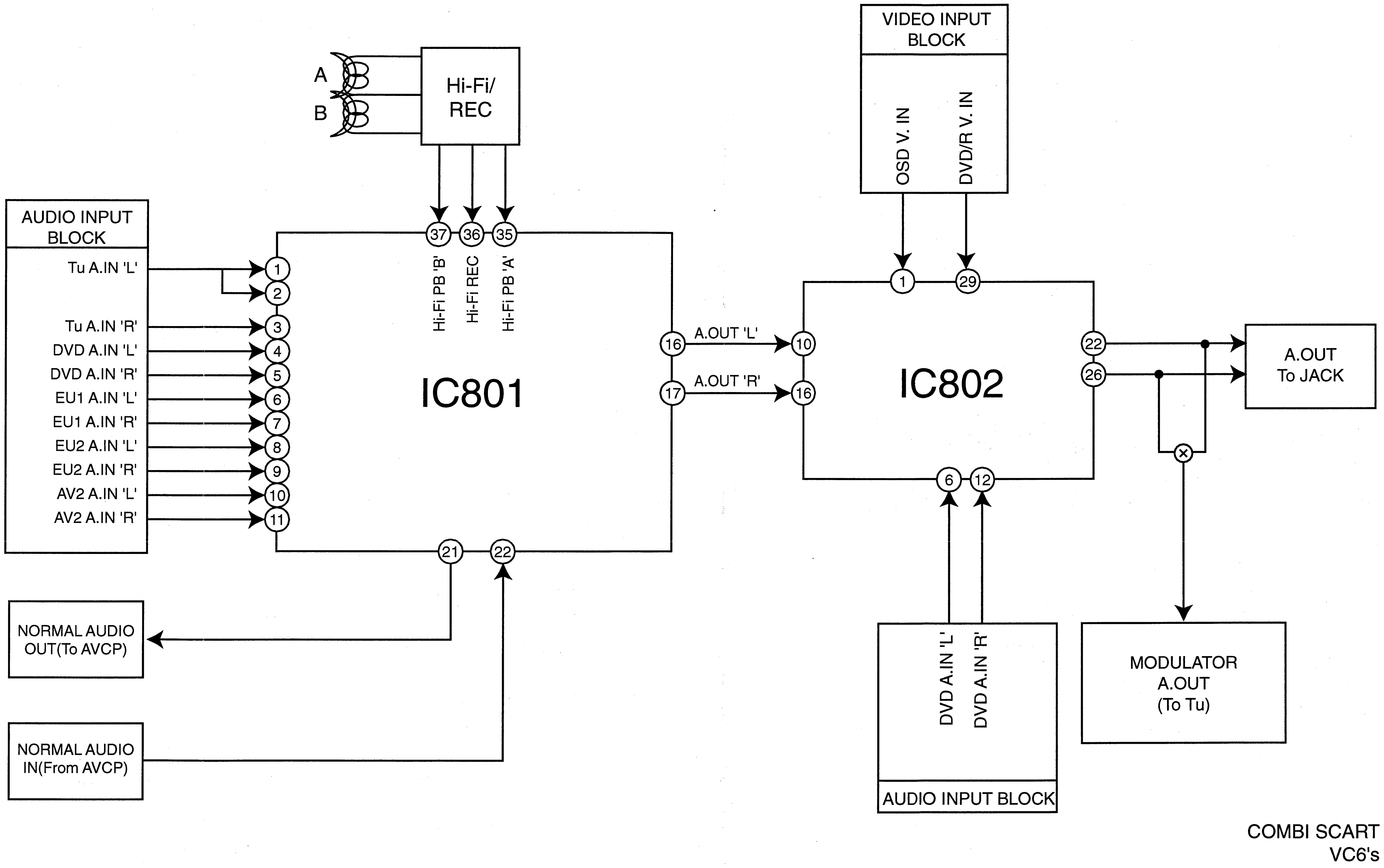

SYNC IN
IC201
LA70100M
29
14
18
46
43
Y-Delay
C-Delay (1H/2H)
CCD LPF
CNC
25
S1 V.OUT
61
S2 V.OUT
63
V.OUT (MICOM)
65
60dB AMP
Y/C MIX
MAIN DE EMP
Y-LPF
YNR
BPF
ACC DET
21
C.SYNC
67
CLOCK
68
DATA
69
C.ROTARY
V.H.SW
70
SUB LPF
FM OEM
MAIN CONV
ACC
IC301
LA71750M
PB FM AGC
PB FM EQ
C LPF
78
79
84
V.ENV
87
90
93
96

(REC MODE)


IC201 LA70100M
16
12
29
2
V.IN2 S1
V.IN1 TUNER
CLK-IN
50
48
46
43
33
32
31
VX02
VX02
29
28
27
4.43MHz
V.IN3 DEC
52
V.IN4 FRONT
54
SW
Y-DELAY
1H/2H DELAY
COMP AMP
KILL DEC
REC APC
58
59
AGC
Main Conv
V.OUT MICOM
65
FBC
BPF
ACC
C SYNC
67
CLOCK
68
DATA
69
C.ROTARY
V.H.SW
70
Y-LPF
YNR
Main Conv
NL EMPHA
DETAIL ENH
75
76
W/D CLIP
W/D CLIP
REC FM EQ
IC301
LA71750M
C-LPF
Killer
78
79
80
REC'H
+
21
88
89
94
95
UP REC
(To Drum)
SP REC
(To Drum)

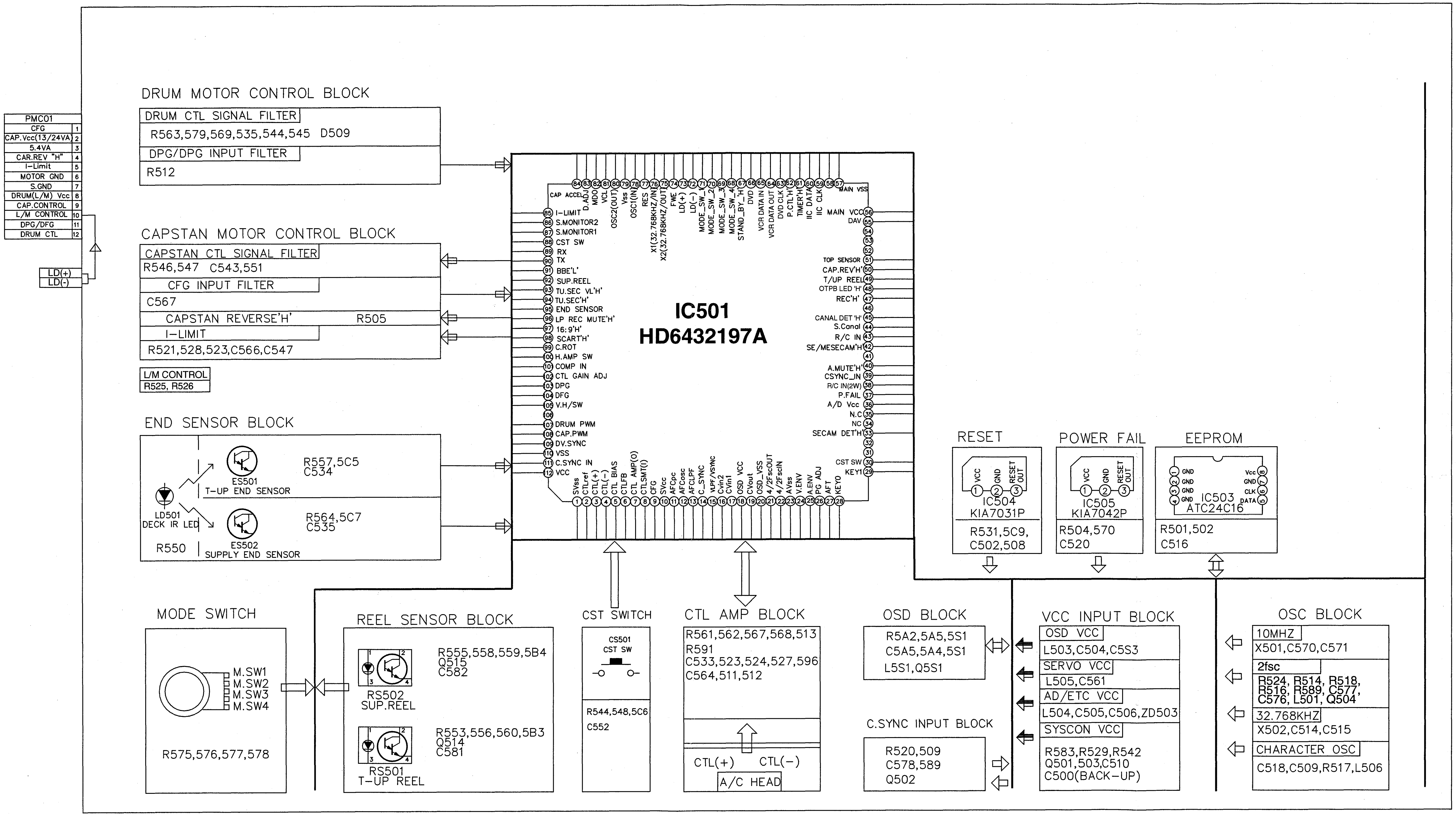
COMBI SCART
VC6's

## 5. Hi-Fi BLOCK DIAGRAM



A
B
Hi-Fi/ REC
VIDEO INPUT BLOCK
OSD V. IN
DVD/R V. IN
AUDIO INPUT BLOCK
Tu A.IN 'L'
Tu A.IN 'R'
DVD A.IN 'L'
DVD A.IN 'R'
EU1 A.IN 'L'
EU1 A.IN 'R'
EU2 A.IN 'L'
EU2 A.IN 'R'
AV2 A.IN 'L'
AV2 A.IN 'R'
1
2
3
4
5
6
7
8
9
10
11
37
36
35
Hi-Fi PB 'B'
Hi-Fi REC
Hi-Fi PB 'A'
IC801
16
17
21
22
A.OUT 'L'
A.OUT 'R'
IC802
1
29
10
16
22
26
6
12
A.OUT To JACK
NORMAL AUDIO OUT(To AVCP)
NORMAL AUDIO IN(From AVCP)
DVD A.IN 'L'
DVD A.IN 'R'
AUDIO INPUT BLOCK
MODULATOR A.OUT (To Tu)
COMBI SCART
VC6's

# 6. SYSTEM BLOCK DIAGRAM


PMC01
CFG 1
CAP.Vcc(13/24VA) 2
5.4VA 3
CAR.REV "H" 4
I-Limit 5
MOTOR GND 6
S.GND 7
DRUM(L/M) Vcc 8
CAP.CONTROL 9
L/M CONTROL 10
DPG/DFG 11
DRUM CTL 12
LD(+)
LD(-)
DRUM MOTOR CONTROL BLOCK
DRUM CTL SIGNAL FILTER
R563,579,569,535,544,545 D509
DPG/DPG INPUT FILTER
R512
CAPSTAN MOTOR CONTROL BLOCK
CAPSTAN CTL SIGNAL FILTER
R546,547 C543,551
CFG INPUT FILTER
C567
CAPSTAN REVERSE'H' R505
I-LIMIT
R521,528,523,C566,C547
L/M CONTROL
R525, R526
END SENSOR BLOCK
ES501
T-UP END SENSOR
R557,5C5
C534
LD501
DECK IR LED
ES502
SUPPLY END SENSOR
R564,5C7
C535
R550
IC501
HD6432197A
84 CAP ACCEL
83 D.ADJ
82 MDO
81 VCL
80 OSC2(OUT)
79 Vss
78 OSC1(IN)
77 RES
76 X1(32.768KHZ/IN)
75 X2(32.768KHZ/OUT)
74 FWE
73 LD(+)
72 LD(-)
71 MODE_SW_1
70 MODE_SW_2
69 MODE_SW_3
68 MODE_SW_4
67 STAND_BY_'H'
66 DVD
65 VCR DATA IN
64 VCR DATA OUT
63 DVD CLK
62 P.CTL'H'
61 TIMER'H'
60 IIC DATA
59 IIC CLK
58
57 MAIN VSS
56 MAIN VCC
55 DAV
54
53
52
51 TOP SENSOR
50 CAP.REV'H'
49 T/UP REEL
48 OTPB LED 'H'
47 REC'H'
46
45 CANAL DET 'H'
44 S.Canal
43 R/C IN
42 SE/MESECAM'H'
41
40 A.MUTE'H'
39 CSYNC_IN
38 R/C IN(2W)
37 P.FAIL
36 A/D Vcc
35 N.C
34 NC
33 SECAM DET'H'
32
31
30 CST SW
29 KEY1
85 I-LIMIT
86 S.MONITOR2
87 S.MONITOR1
88 CST SW
89 RX
90 TX
91 BBE'L'
92 SUP.REEL
93 TU.SEC VL'H'
94 TU.SEC'H'
95 END SENSOR
96 LP REC MUTE'H'
97 16:9'H'
98 SCART'H'
99 C.ROT
100 H.AMP SW
101 COMP IN
102 CTL GAIN ADJ
103 DPG
104 DFG
105 V.H/SW
106
107 DRUM PWM
108 CAP.PWM
109 DV.SYNC
110 VSS
111 C.SYNC IN
112 VCC
1 SVss
2 CTLref
3 CTL(+)
4 CTL(-)
5 CTL BIAS
6 CTLFB
7 CTL AMP(O)
8 CTLSMT(I)
9 CFG
10 SVcc
11 AFCpc
12 AFCosc
13 AFCLPF
14 C_SYNC
15 VLPF/VSYNC
16 Cvin2
17 CVin1
18 OSD VCC
19 CVout
20 OSD_VSS
21 4/2FscOUT
22 4/2FscIN
23 AVss
24 V.ENV
25 A.ENV
26 PG ADJ
27 AFT
28 KEYO
RESET
VCC GND RESET OUT
1 2 3
IC504
KIA7031P
R531,5C9,
C502,508
POWER FAIL
VCC GND RESET OUT
1 2 3
IC505
KIA7042P
R504,570
C520
EEPROM
1 GND
2 GND
3 GND
4 GND
Vcc 8
GND 7
CLK 6
DATA 5
IC503
ATC24C16
R501,502
C516
MODE SWITCH
M.SW1
M.SW2
M.SW3
M.SW4
R575,576,577,578
REEL SENSOR BLOCK
RS502
SUP.REEL
R555,558,559,5B4
Q515
C582
RS501
T-UP REEL
R553,556,560,5B3
Q514
C581
CST SWITCH
CS501
CST SW
R544,548,5C6
C552
CTL AMP BLOCK
R561,562,567,568,513
R591
C533,523,524,527,596
C564,511,512
CTL(+) CTL(-)
A/C HEAD
OSD BLOCK
R5A2,5A5,5S1
C5A5,5A4,5S1
L5S1,Q5S1
C.SYNC INPUT BLOCK
R520,509
C578,589
Q502
VCC INPUT BLOCK
OSD VCC
L503,C504,C5S3
SERVO VCC
L505,C561
AD/ETC VCC
L504,C505,C506,ZD503
SYSCON VCC
R583,R529,R542
Q501,503,C510
C500(BACK-UP)
OSC BLOCK
10MHZ
X501,C570,C571
2fsc
R524, R514, R518,
R516, R589, C577,
C576, L501, Q504
32.768KHZ
X502,C514,C515
CHARACTER OSC
C518,C509,R517,L506

# CIRCUIT DIAGRAMS

## 1. POWER(SMPS) CIRCUIT DIAGRAM

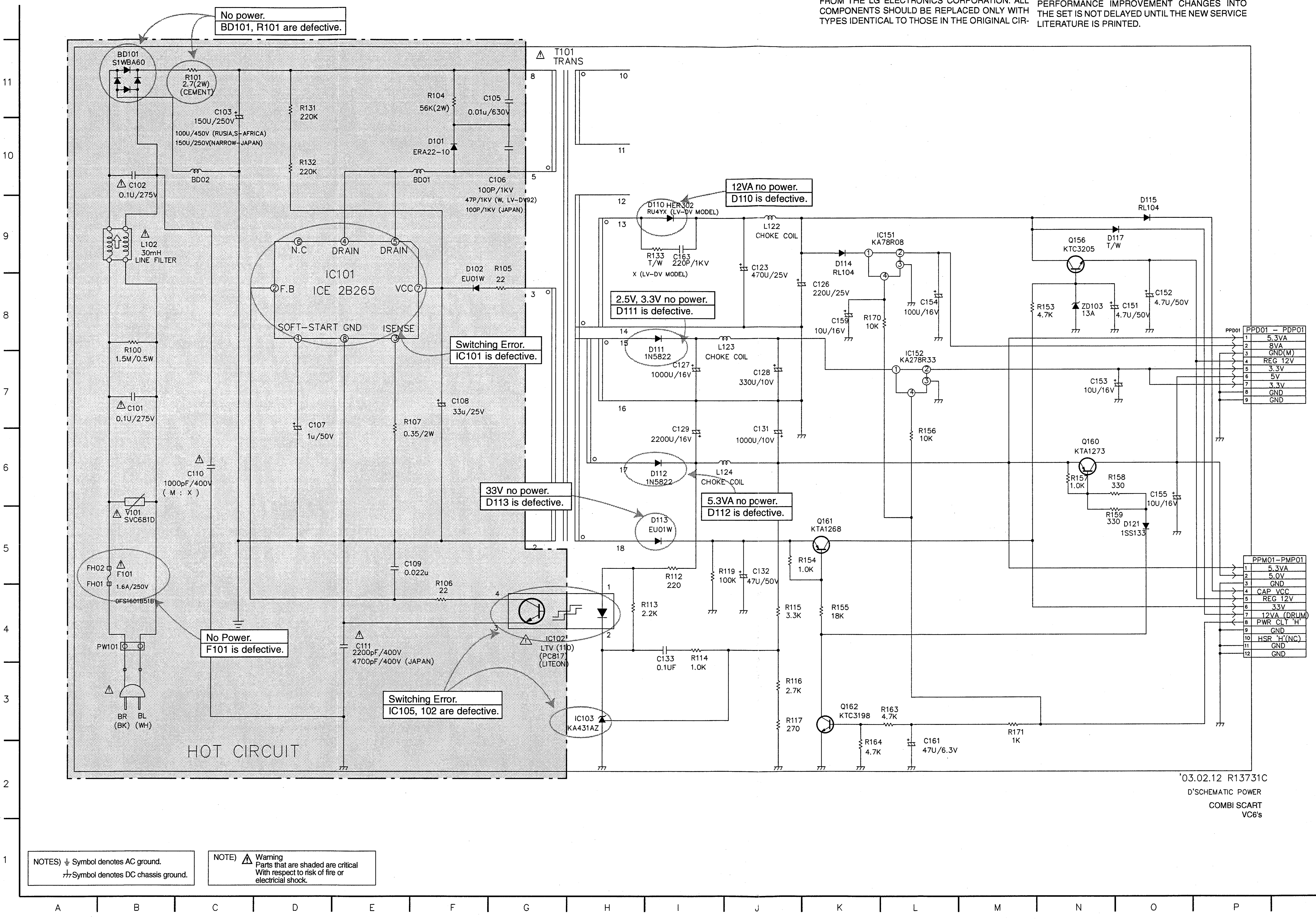
**IMPORTANT SAFETY NOTICE**

WHEN SERVICING THIS CHASSIS, UNDER NO CIRCUMSTANCES SHOULD THE ORIGINAL DESIGN BE MODIFIED OR ALTERED WITHOUT PERMISSION FROM THE LG ELECTRONICS CORPORATION. ALL COMPONENTS SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL CIRCUIT. SPECIAL COMPONENTS ARE SHADED ON THE SCHEMATIC FOR EASY IDENTIFICATION.

THIS CIRCUIT DIAGRAM MAY OCCASIONALLY DIFFER FROM THE ACTUAL CIRCUIT USED. THIS WAY, IMPLEMENTATION OF THE LATEST SAFETY AND PERFORMANCE IMPROVEMENT CHANGES INTO THE SET IS NOT DELAYED UNTIL THE NEW SERVICE LITERATURE IS PRINTED.

**NOTE :**

1. Shaded(■) parts are critical for safety. Replace only with specified part number.
2. Voltages are DC-measured with a digital voltmeter during Play mode.


BD101
S1WBA60
R101
2.7(2W)
(CEMENT)
C103
150U/250V
100U/450V (RUSIA,S-AFRICA)
150U/250V(NARROW-JAPAN)
R131
220K
R132
220K
R104
56K(2W)
C105
0.01u/630V
D101
ERA22-10
BD02
BD01
C106
100P/1KV
47P/1KV (W, LV-DV92)
100P/1KV (JAPAN)
C102
0.1U/275V
L102
30mH
LINE FILTER
IC101
ICE 2B265
N.C
DRAIN
DRAIN
F.B
VCC
SOFT-START
GND
ISENSE
D102
EU01W
R105
22
R100
1.5M/0.5W
C101
0.1U/275V
C108
33u/25V
C107
1u/50V
R107
0.35/2W
C110
1000pF/400V
( M : X )
V101
SVC681D
FH02
FH01
F101
1.6A/250V
0FS1601B51B
C109
0.022u
R106
22
PW101
BR
BL
(BK)
(WH)
C111
2200pF/400V
4700pF/400V (JAPAN)
IC102
LTV (110)
(PC817)
(LITEON)
IC103
KA431AZ
HOT CIRCUIT
T101
TRANS
D110 HER302
RU4YX (LV-DV MODEL)
R133
T/W
C163
220P/1KV
X (LV-DV MODEL)
L122
CHOKE COIL
C123
470U/25V
D114
RL104
IC151
KA78R08
C126
220U/25V
C159
10U/16V
R170
10K
C154
100U/16V
D111
1N5822
C127
1000U/16V
L123
CHOKE COIL
C128
330U/10V
IC152
KA278R33
C129
2200U/16V
C131
1000U/10V
R156
10K
D112
1N5822
L124
CHOKE COIL
D113
EU01W
Q161
KTA1268
R154
1.0K
R112
220
R119
100K
C132
47U/50V
R113
2.2K
R115
3.3K
R155
18K
C133
0.1UF
R114
1.0K
R116
2.7K
R117
270
Q162
KTC3198
R163
4.7K
R164
4.7K
C161
47U/6.3V
R171
1K
D115
RL104
Q156
KTC3205
D117
T/W
R153
4.7K
ZD103
13A
C151
4.7U/50V
C152
4.7U/50V
C153
10U/16V
Q160
KTA1273
R157
1.0K
R158
330
C155
10U/16V
R159
330
D121
1SS133
PPD01
PPD01 - PDP01
1 5.3VA
2 8VA
3 GND(M)
4 REG 12V
5 3.3V
6 5V
7 3.3V
8 GND
9 GND
PPM01-PMP01
1 5.3VA
2 5.0V
3 GND
4 CAP VCC
5 REG 12V
6 33V
7 12VA (DRUM)
8 PWR CLT 'H'
9 GND
10 HSR 'H'(NC)
11 GND
12 GND
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
1
2
3
4
5
6
7
8
9
10
11

No power.
BD101, R101 are defective.

12VA no power.
D110 is defective.

2.5V, 3.3V no power.
D111 is defective.

Switching Error.
IC101 is defective.

33V no power.
D113 is defective.

5.3VA no power.
D112 is defective.

No Power.
F101 is defective.

Switching Error.
IC105, 102 are defective.

'03.02.12 R13731C
D'SCHEMATIC POWER
COMBI SCART
VC6's

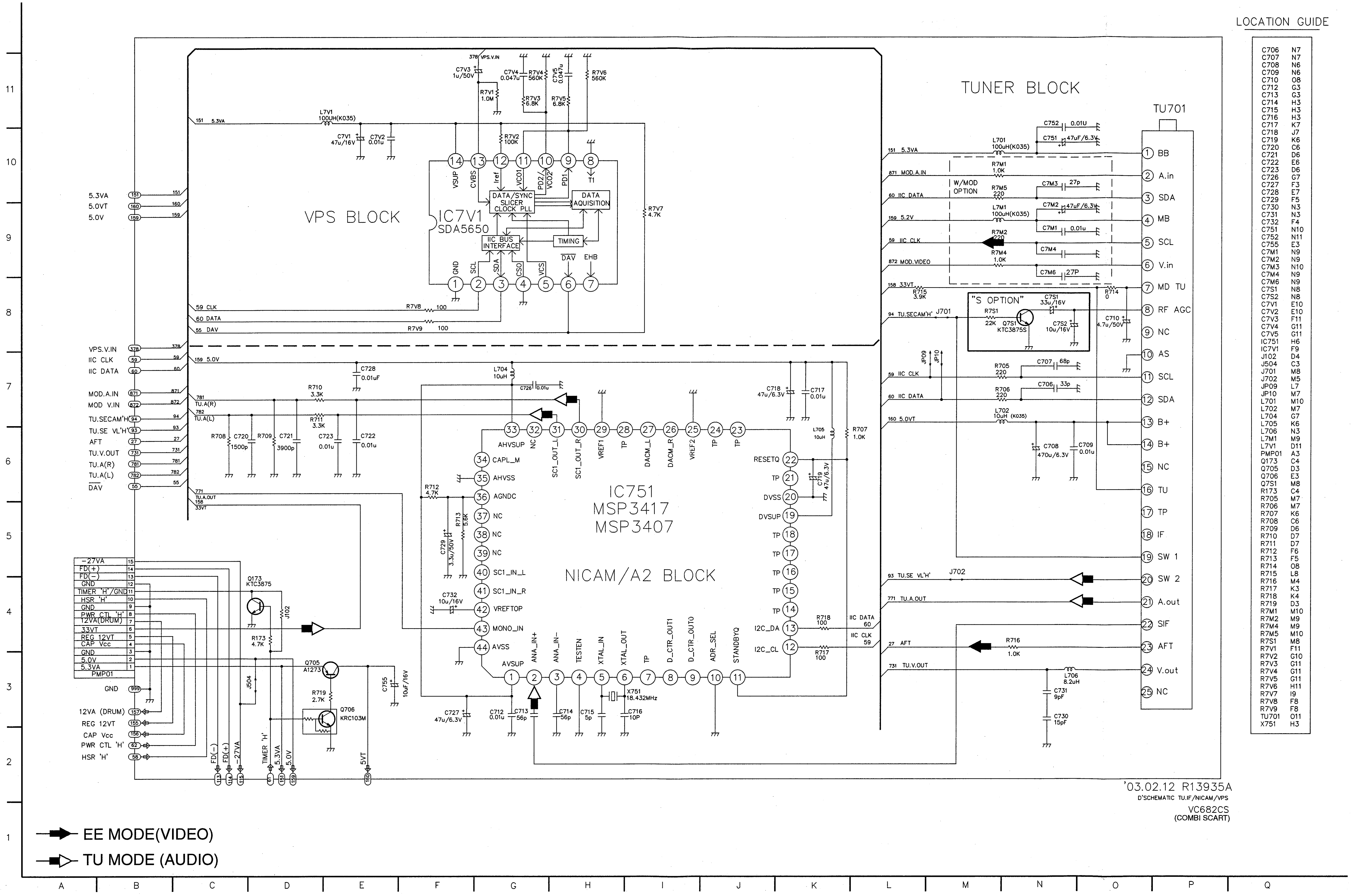
NOTES) ⏚ Symbol denotes AC ground.
⏚ Symbol denotes DC chassis ground.

NOTE) ⚠ Warning
Parts that are shaded are critical
With respect to risk of fire or
electricial shock.

LOCATION GUIDE

| | |
|---|---|
| BD01 | F10 |
| BD02 | C10 |
| BD101 | B11 |
| C101 | B7 |
| C102 | B10 |
| C103 | C11 |
| C105 | F11 |
| C106 | G10 |
| C107 | D7 |
| C108 | F7 |
| C109 | E5 |
| C110 | C6 |
| C111 | E4 |
| C123 | J9 |
| C126 | K8 |
| C127 | I7 |
| C128 | J7 |
| C129 | I6 |
| C131 | J6 |
| C132 | J5 |
| C133 | I4 |
| C151 | O8 |
| C152 | O8 |
| C153 | N7 |
| C154 | L8 |
| C155 | O6 |
| C159 | K8 |
| C161 | L2 |
| C163 | I9 |
| D101 | F10 |
| D102 | F9 |
| D110 | I9 |
| D111 | I7 |
| D112 | I6 |
| D113 | I5 |
| D114 | K9 |
| D115 | O9 |
| D117 | N9 |
| D121 | O5 |
| FH01 | A4 |
| FH02 | A5 |
| IC101 | D8 |
| IC102 | G4 |
| IC103 | H3 |
| IC151 | K9 |
| IC152 | L7 |
| L102 | B9 |
| L122 | J9 |
| L123 | I8 |
| L124 | I6 |
| PPD01 | P8 |
| PW101 | B4 |
| Q156 | N9 |
| Q160 | N6 |
| Q161 | K5 |
| Q162 | K3 |
| R100 | B7 |
| R101 | C11 |
| R104 | F11 |
| R105 | G9 |
| R106 | F4 |
| R107 | E7 |
| R112 | I5 |
| R113 | H4 |
| R114 | I4 |
| R115 | J4 |
| R116 | J3 |
| R117 | J3 |
| R119 | I5 |
| R131 | D11 |
| R132 | D10 |
| R133 | I9 |
| R153 | N8 |
| R154 | J5 |
| R155 | K4 |
| R156 | L6 |
| R157 | N6 |
| R158 | N6 |
| R159 | N5 |
| R163 | L3 |
| R164 | K2 |
| R170 | K8 |
| R171 | M3 |
| T101 | G11 |
| V101 | B5 |
| ZD103 | N8 |

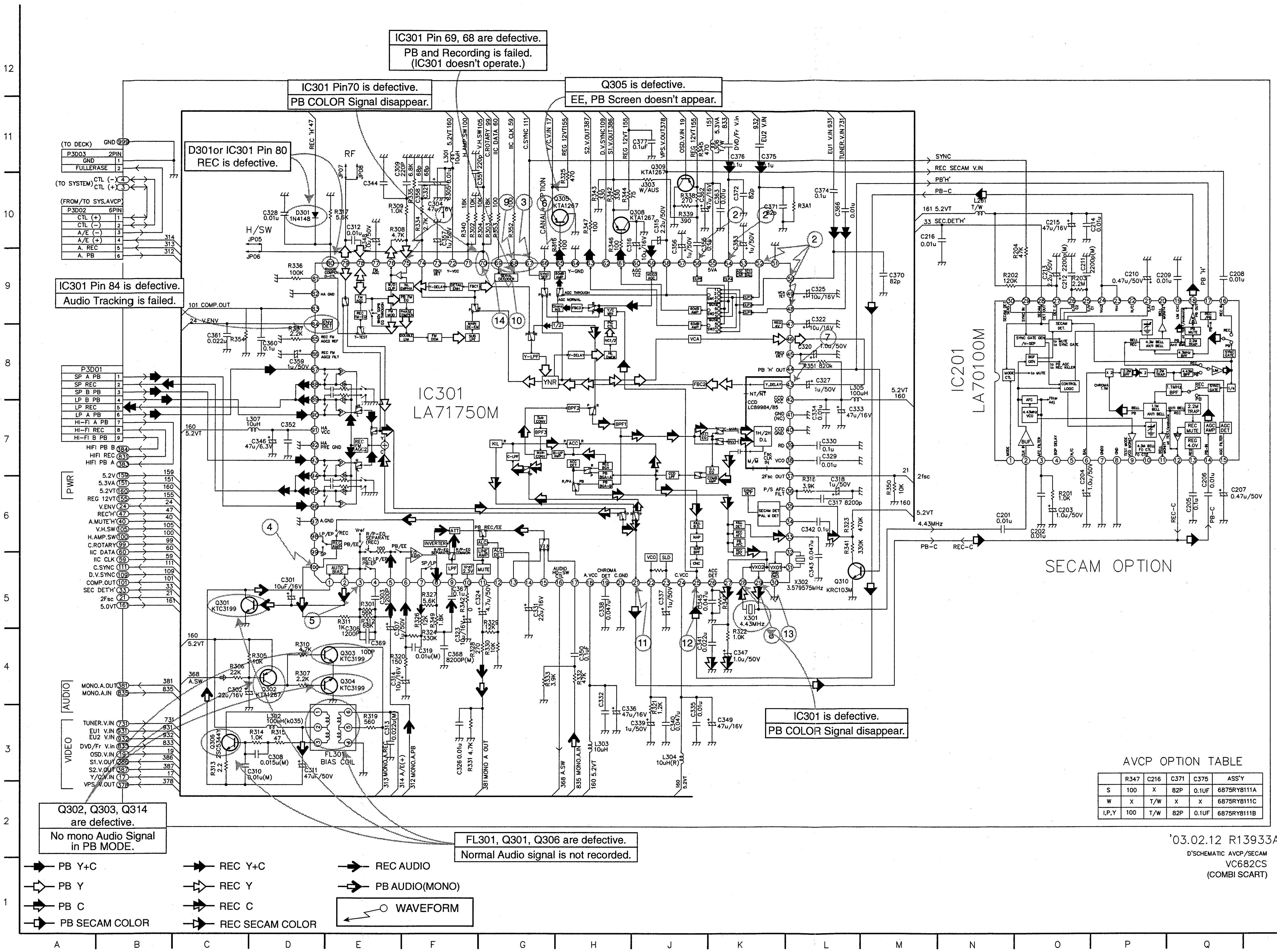
## 2. TU/IF, NICAM & A2 CIRCUIT DIAGRAM


VPS BLOCK
IC7V1
SDA5650
DATA/SYNC SLICER CLOCK PLL
DATA AQUISITION
IIC BUS INTERFACE
TIMING
VSUP
CVBS
Iref
VCO1
PD2/VCO2
PD1
T1
GND
SCL
SDA
CSO
VCS
DAV
EHB
TUNER BLOCK
TU701
BB
A.in
SDA
MB
SCL
V.in
MD TU
RF AGC
NC
AS
SCL
SDA
B+
B+
NC
TU
TP
IF
SW 1
SW 2
A.out
SIF
AFT
V.out
NC
W/MOD OPTION
"S OPTION"
Q7S1 KTC3875S
NICAM/A2 BLOCK
IC751
MSP3417
MSP3407
AHVSUP
CAPL_M
AHVSS
AGNDC
NC
SC1_IN_L
SC1_IN_R
VREFTOP
MONO_IN
AVSS
AVSUP
ANA_IN+
ANA_IN-
TESTEN
XTAL_IN
XTAL_OUT
TP
D_CTR_OUT1
D_CTR_OUT0
ADR_SEL
STANDBYQ
I2C_CL
I2C_DA
DVSUP
DVSS
RESETQ
SC1_OUT_L
SC1_OUT_R
VREF1
DACM_L
DACM_R
VREF2
X751 18.432MHz
5.3VA
5.0VT
5.0V
VPS.V.IN
IIC CLK
IIC DATA
MOD.A.IN
MOD V.IN
TU.SECAM'H'
TU.SE VL'H'
AFT
TU.V.OUT
TU.A(R)
TU.A(L)
DAV
PMP01
-27VA
FD(+)
FD(-)
GND
TIMER 'H'/GND
HSR 'H'
PWR CTL 'H'
12VA(DRUM)
33VT
REG 12VT
CAP Vcc
5.0V
5.3VA
GND
12VA (DRUM)
REG 12VT
CAP Vcc
PWR CTL 'H'
HSR 'H'
Q173 KTC3875
Q705 A1273
Q706 KRC103M
J102
J504
J701
J702
EE MODE(VIDEO)
TU MODE (AUDIO)
'03.02.12 R13935A
D'SCHEMATIC TU.IF/NICAM/VPS
VC682CS
(COMBI SCART)
A B C D E F G H I J K L M N O P Q
1 2 3 4 5 6 7 8 9 10 11

LOCATION GUIDE

| | |
|---|---|
| C706 | N7 |
| C707 | N7 |
| C708 | N6 |
| C709 | N6 |
| C710 | O8 |
| C712 | G3 |
| C713 | G3 |
| C714 | H3 |
| C715 | H3 |
| C716 | H3 |
| C717 | K7 |
| C718 | J7 |
| C719 | K6 |
| C720 | C6 |
| C721 | D6 |
| C722 | E6 |
| C723 | D6 |
| C726 | G7 |
| C727 | F3 |
| C728 | E7 |
| C729 | F5 |
| C730 | N3 |
| C731 | N3 |
| C732 | F4 |
| C751 | N10 |
| C752 | N11 |
| C755 | E3 |
| C7M1 | N9 |
| C7M2 | N9 |
| C7M3 | N10 |
| C7M4 | N9 |
| C7M6 | N9 |
| C7S1 | N8 |
| C7S2 | N8 |
| C7V1 | E10 |
| C7V2 | E10 |
| C7V3 | F11 |
| C7V4 | G11 |
| C7V5 | G11 |
| IC751 | H6 |
| IC7V1 | F9 |
| J102 | D4 |
| J504 | C3 |
| J701 | M8 |
| J702 | M5 |
| JP09 | L7 |
| JP10 | M7 |
| L701 | M10 |
| L702 | M7 |
| L704 | G7 |
| L705 | K6 |
| L706 | N3 |
| L7M1 | M9 |
| L7V1 | D11 |
| PMP01 | A3 |
| Q173 | C4 |
| Q705 | D3 |
| Q706 | E3 |
| Q7S1 | M8 |
| R173 | C4 |
| R705 | M7 |
| R706 | M7 |
| R707 | K6 |
| R708 | C6 |
| R709 | D6 |
| R710 | D7 |
| R711 | D7 |
| R712 | F6 |
| R713 | F5 |
| R714 | O8 |
| R715 | L8 |
| R716 | M4 |
| R717 | K3 |
| R718 | K4 |
| R719 | D3 |
| R7M1 | M10 |
| R7M2 | M9 |
| R7M4 | M9 |
| R7M5 | M10 |
| R7S1 | M8 |
| R7V1 | F11 |
| R7V2 | G10 |
| R7V3 | G11 |
| R7V4 | G11 |
| R7V5 | G11 |
| R7V6 | H11 |
| R7V7 | I9 |
| R7V8 | F8 |
| R7V9 | F8 |
| TU701 | O11 |
| X751 | H3 |

# 3. A/V CIRCUIT DIAGRAM


IC301
LA71750M
IC201
LA70100M
SECAM OPTION
H/SW
RF
(TO DECK)
P3D03 2PIN
GND
FULLERASE
(TO SYSTEM) CTL (-) CTL (+)
(FROM/TO SYS,AVCP)
P3D02 6PIN
CTL (+)
CTL (-)
A/E (-)
A/E (+)
A. REC
A. PB
P3D01
SP A PB
SP REC
SP B PB
LP B PB
LP REC
LP A PB
HI-FI A PB
HI-FI REC
HI-FI B PB
PWR
AUDIO
VIDEO
Q301 KTC3199
Q302 KTA1267
Q303 KTC3199
Q304 KTC3199
Q305 KTA1267
Q306
Q308 KTA1267
Q309 KTA1267
Q310 KRC103M
D301 1N4148
FL301 BIAS COIL
X301 4.43MHz
X302 3.579575MHz
12
11
10
9
8
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
PB Y+C
PB Y
PB C
PB SECAM COLOR
REC Y+C
REC Y
REC C
REC SECAM COLOR
REC AUDIO
PB AUDIO(MONO)
WAVEFORM

IC301 Pin 69, 68 are defective.
PB and Recording is failed.
(IC301 doesn't operate.)

IC301 Pin70 is defective.
PB COLOR Signal disappear.

Q305 is defective.
EE, PB Screen doesn't appear.

D301or IC301 Pin 80
REC is defective.

IC301 Pin 84 is defective.
Audio Tracking is failed.

IC301 is defective.
PB COLOR Signal disappear.

Q302, Q303, Q314
are defective.
No mono Audio Signal
in PB MODE.

FL301, Q301, Q306 are defective.
Normal Audio signal is not recorded.

AVCP OPTION TABLE

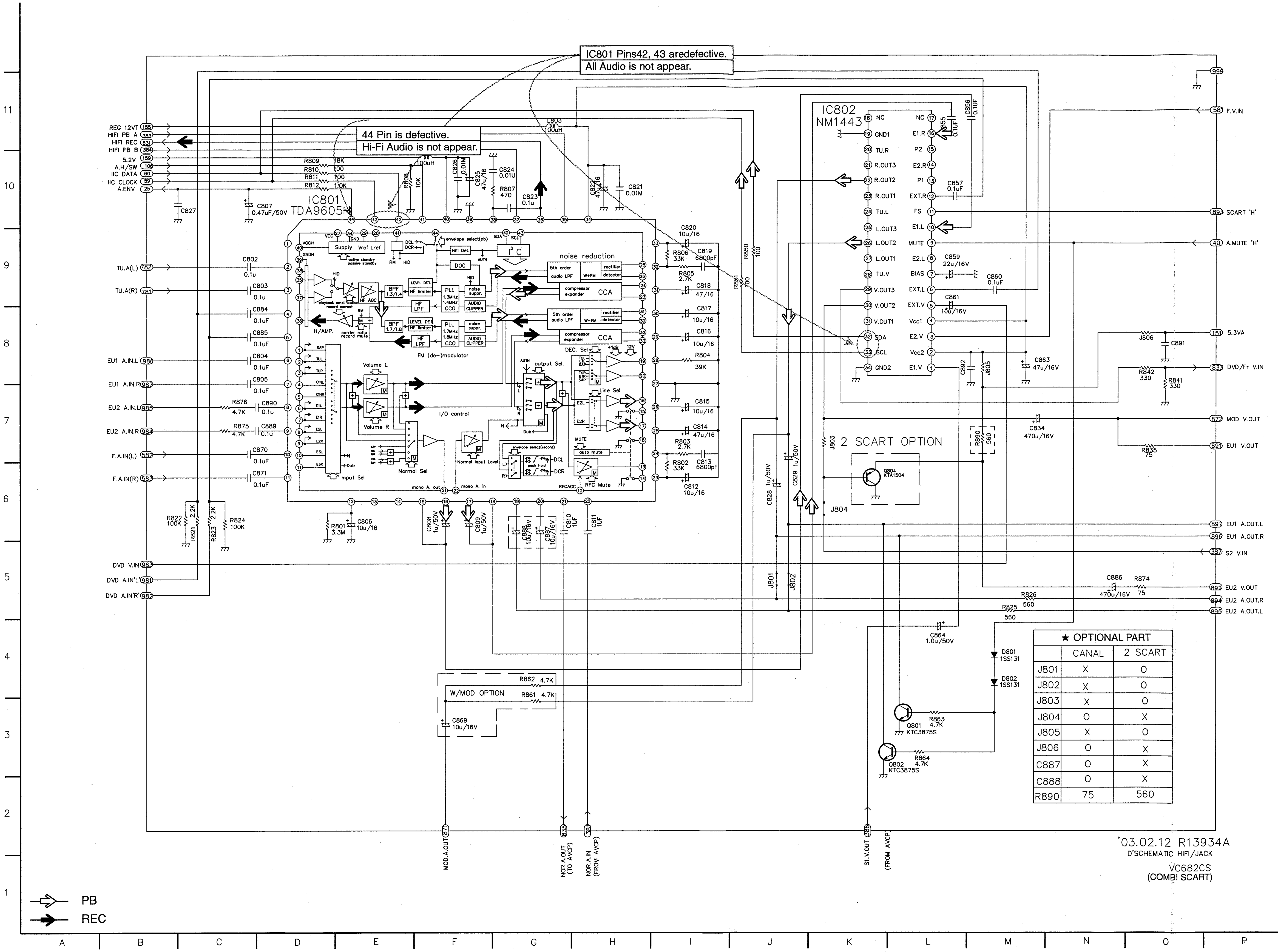
| | R347 | C216 | C371 | C375 | ASS'Y |
|---|---|---|---|---|---|
| S | 100 | X | 82P | 0.1UF | 6875RY8111A |
| W | X | T/W | X | X | 6875RY8111C |
| I,P,Y | 100 | T/W | 82P | 0.1UF | 6875RY8111B |

'03.02.12 R13933A
D'SCHEMATIC AVCP/SECAM
VC682CS
(COMBI SCART)

LOCATION GUIDE

| | |
|---|---|
| C201 | M6 |
| C202 | N6 |
| C203 | N6 |
| C204 | N6 |
| C205 | P6 |
| C206 | P6 |
| C207 | P6 |
| C208 | P9 |
| C209 | O9 |
| C210 | O9 |
| C211 | N9 |
| C212 | N9 |
| C213 | N9 |
| C214 | O10 |
| C215 | N10 |
| C216 | L10 |
| C301 | D5 |
| C302 | C4 |
| C303 | E5 |
| C304 | F10 |
| C305 | F10 |
| C306 | E4 |
| C307 | E4 |
| C308 | D3 |
| C309 | E10 |
| C310 | C3 |
| C311 | D3 |
| C312 | E10 |
| C313 | E3 |
| C314 | E4 |
| C315 | I10 |
| C316 | H9 |
| C317 | K6 |
| C318 | K6 |
| C319 | F4 |
| C320 | K8 |
| C321 | F10 |
| C322 | K9 |
| C323 | F4 |
| C324 | G5 |
| C325 | K9 |
| C326 | F3 |
| C327 | K8 |
| C328 | D10 |
| C329 | K7 |
| C330 | K7 |
| C331 | G5 |
| C332 | H3 |
| C333 | K7 |
| C334 | K7 |
| C335 | I3 |
| C336 | H3 |
| C337 | I5 |
| C338 | H5 |
| C339 | H3 |
| C340 | I3 |
| C341 | I4 |
| C342 | K6 |
| C343 | K5 |
| C344 | E10 |
| C345 | I5 |
| C346 | D7 |
| C347 | J4 |
| C348 | E9 |
| C349 | J3 |
| C350 | H4 |
| C351 | G10 |
| C352 | D7 |
| C353 | J9 |
| C355 | I9 |
| C356 | I9 |
| C357 | F10 |
| C358 | F10 |
| C359 | D8 |
| C360 | D8 |
| C361 | C8 |
| C362 | I10 |
| C363 | J10 |
| C366 | K10 |
| C367 | F5 |
| C368 | F4 |
| C369 | E4 |
| C370 | L9 |
| C371 | J10 |
| C372 | J10 |
| C374 | K10 |
| C375 | J11 |
| C376 | J11 |
| C377 | I11 |
| D301 | D10 |
| FL301 | E3 |
| IC201 | M8 |
| IC301 | F8 |
| J303 | I10 |
| JP05 | C10 |
| JP06 | C9 |
| JP07 | E10 |
| JP08 | E10 |
| L201 | M10 |
| L301 | F11 |
| L302 | D3 |
| L303 | H3 |
| L304 | I3 |
| L305 | K8 |
| L306 | J11 |
| L307 | C7 |
| P3D01 | A8 |
| P3D02 | A10 |
| P3D03 | A11 |
| Q301 | C5 |
| Q302 | D4 |
| Q303 | E4 |
| Q304 | E4 |
| Q305 | G10 |
| Q306 | C3 |
| Q308 | H10 |
| Q309 | I11 |
| Q310 | K5 |
| R201 | N6 |
| R202 | M9 |
| R203 | N9 |
| R204 | N9 |
| R301 | E5 |
| R302 | F10 |
| R303 | G10 |
| R304 | G10 |
| R305 | D4 |
| R306 | C4 |
| R307 | D4 |
| R308 | E10 |
| R309 | E10 |
| R310 | D4 |
| R311 | E5 |
| R312 | E5 |
| R313 | C3 |
| R314 | D3 |
| R315 | D3 |
| R316 | H9 |
| R317 | E10 |
| R318 | K6 |
| R319 | E3 |
| R320 | E4 |
| R321 | I3 |
| R322 | J4 |
| R323 | K6 |
| R324 | F4 |
| R325 | H10 |
| R326 | F5 |
| R327 | F5 |
| R328 | F4 |
| R329 | G5 |
| R330 | G4 |
| R331 | F3 |
| R332 | H4 |
| R333 | G4 |
| R334 | F10 |
| R335 | F10 |
| R336 | D9 |
| R337 | D8 |
| R338 | I10 |
| R339 | I10 |
| R340 | F10 |
| R341 | K5 |
| R342 | H10 |
| R343 | H10 |
| R344 | H10 |
| R345 | I11 |
| R346 | H9 |
| R347 | H10 |
| R348 | J5 |
| R349 | F5 |
| R350 | L6 |
| R351 | K8 |
| R352 | G10 |
| R353 | G10 |
| R354 | C8 |
| R3A1 | K10 |
| R3A2 | F5 |
| X301 | J5 |
| X302 | K5 |

# 4. Hi-Fi CIRCUIT DIAGRAM



REG 12VT
HIFI PB A
HIFI REC
HIFI PB B
5.2V
A.H/SW
IIC DATA
IIC CLOCK
A.ENV
TU.A(L)
TU.A(R)
EU1 A.IN.L
EU1 A.IN.R
EU2 A.IN.L
EU2 A.IN.R
F.A.IN(L)
F.A.IN(R)
DVD V.IN
DVD A.IN'L'
DVD A.IN'R'
IC801
TDA9605H
IC802
NM1443
noise reduction
compressor expander
CCA
FM (de-)modulator
I/O control
Volume L
Volume R
Normal Sel
Input Sel
F.V.IN
SCART 'H'
A.MUTE 'H'
5.3VA
DVD/Fr V.IN
MOD V.OUT
EU1 V.OUT
EU1 A.OUT.L
EU1 A.OUT.R
S2 V.IN
EU2 V.OUT
EU2 A.OUT.R
EU2 A.OUT.L
2 SCART OPTION
W/MOD OPTION
MOD.A.OUT
NOR.A.OUT (TO AVCP)
NOR.A.IN (FROM AVCP)
S1.V.OUT (FROM AVCP)
Q801 KTC3875S
Q802 KTC3875S
Q804 KTA1504
D801 1SS131
D802 1SS131
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
1
2
3
4
5
6
7
8
9
10
11

IC801 Pins42, 43 aredefective.
All Audio is not appear.

44 Pin is defective.
Hi-Fi Audio is not appear.

| ★ OPTIONAL PART | CANAL | 2 SCART |
|---|---|---|
| J801 | X | O |
| J802 | X | O |
| J803 | X | O |
| J804 | O | X |
| J805 | X | O |
| J806 | O | X |
| C887 | O | X |
| C888 | O | X |
| R890 | 75 | 560 |

'03.02.12 R13934A
D'SCHEMATIC HIFI/JACK

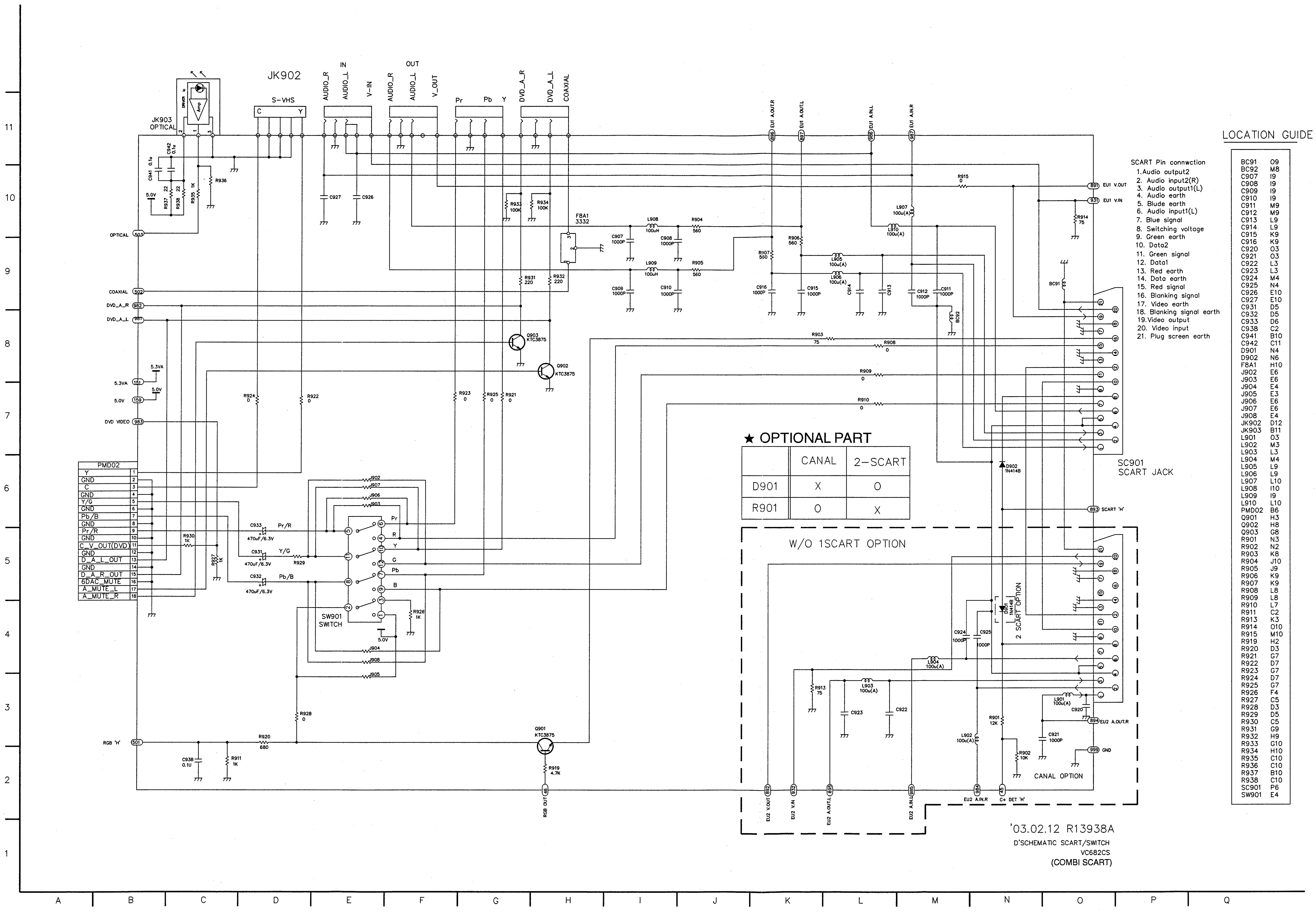
VC682CS
(COMBI SCART)

PB
REC

LOCATION GUIDE

| | |
|---|---|
| C802 | C9 |
| C803 | C9 |
| C804 | C8 |
| C805 | C8 |
| C806 | E6 |
| C807 | D10 |
| C808 | F6 |
| C809 | F6 |
| C810 | G6 |
| C811 | H6 |
| C812 | I6 |
| C813 | I6 |
| C814 | I7 |
| C815 | I7 |
| C816 | I8 |
| C817 | I8 |
| C818 | I9 |
| C819 | I9 |
| C820 | I9 |
| C821 | H10 |
| C822 | H10 |
| C823 | G10 |
| C824 | G10 |
| C825 | F10 |
| C826 | F10 |
| C827 | C10 |
| C828 | J6 |
| C829 | J6 |
| C834 | M7 |
| C855 | L11 |
| C856 | M11 |
| C857 | L10 |
| C859 | L9 |
| C860 | M9 |
| C861 | L9 |
| C863 | M8 |
| C864 | L4 |
| C869 | F3 |
| C870 | C7 |
| C871 | C6 |
| C884 | C8 |
| C885 | C8 |
| C886 | N5 |
| C887 | G5 |
| C888 | G6 |
| C889 | D7 |
| C890 | D7 |
| C891 | O8 |
| C892 | L8 |
| D801 | M4 |
| D802 | M4 |
| IC801 | D10 |
| IC802 | K11 |
| J801 | J5 |
| J802 | J5 |
| J803 | K7 |
| J804 | K6 |
| J805 | M8 |
| J806 | O8 |
| L801 | F10 |
| L803 | G11 |
| Q801 | L3 |
| Q802 | L3 |
| Q804 | K6 |
| R801 | D6 |
| R802 | I6 |
| R803 | I7 |
| R804 | I8 |
| R805 | I9 |
| R806 | I9 |
| R807 | G10 |
| R808 | E10 |
| R809 | D10 |
| R810 | D10 |
| R811 | D10 |
| R812 | D10 |
| R821 | C6 |
| R822 | B6 |
| R823 | C5 |
| R824 | C6 |
| R825 | M5 |
| R826 | M5 |
| R835 | O7 |
| R841 | O8 |
| R842 | O8 |
| R850 | J9 |
| R851 | J9 |
| R861 | G4 |
| R862 | G4 |
| R863 | L3 |
| R864 | L3 |
| R874 | O5 |
| R875 | C7 |
| R876 | C7 |
| R890 | M7 |

# 5. SCART(JACK) CIRCUIT DIAGRAM


JK902
JK903
OPTICAL
S-VHS
IN
OUT
AUDIO_R
AUDIO_L
V-IN
V_OUT
Pr
Pb
Y
DVD_A_R
DVD_A_L
COAXIAL
FBA1
3332
OPTICAL
COAXIAL
DVD_A_R
DVD_A_L
5.3VA
5.0V
DVD VIDEO
PMD02
Y
GND
C
GND
Y/G
GND
Pb/B
GND
Pr/R
GND
C_V_OUT(DVD)
GND
D_A_L_OUT
GND
D_A_R_OUT
6DAC_MUTE
A_MUTE_L
A_MUTE_R
Q901
Q902
Q903
KTC3875
SW901
SWITCH
RGB 'H'
RGB OUT
EU1 A.OUT.R
EU1 A.OUT.L
EU1 A.IN.L
EU1 A.IN.R
EU1 V.OUT
EU1 V.IN
SCART 'H'
D902
1N4148
SC901
SCART JACK
W/O 1SCART OPTION
2 SCART OPTION
CANAL OPTION
EU2 V.OUT
EU2 V.IN
EU2 A.OUT.L
EU2 A.IN.L
EU2 A.IN.R
C+ DET 'H'
EU2 A.OUT.R
GND
A B C D E F G H I J K L M N O P Q
1 2 3 4 5 6 7 8 9 10 11

SCART Pin connwction
1.Audio output2
2. Audio input2(R)
3. Audio output1(L)
4. Audio earth
5. Blude earth
6. Audio input1(L)
7. Blue signal
8. Switching voltage
9. Green earth
10. Data2
11. Green signal
12. Data1
13. Red earth
14. Data earth
15. Red signal
16. Blanking signal
17. Video earth
18. Blanking signal earth
19.Video output
20. Video input
21. Plug screen earth

★ OPTIONAL PART

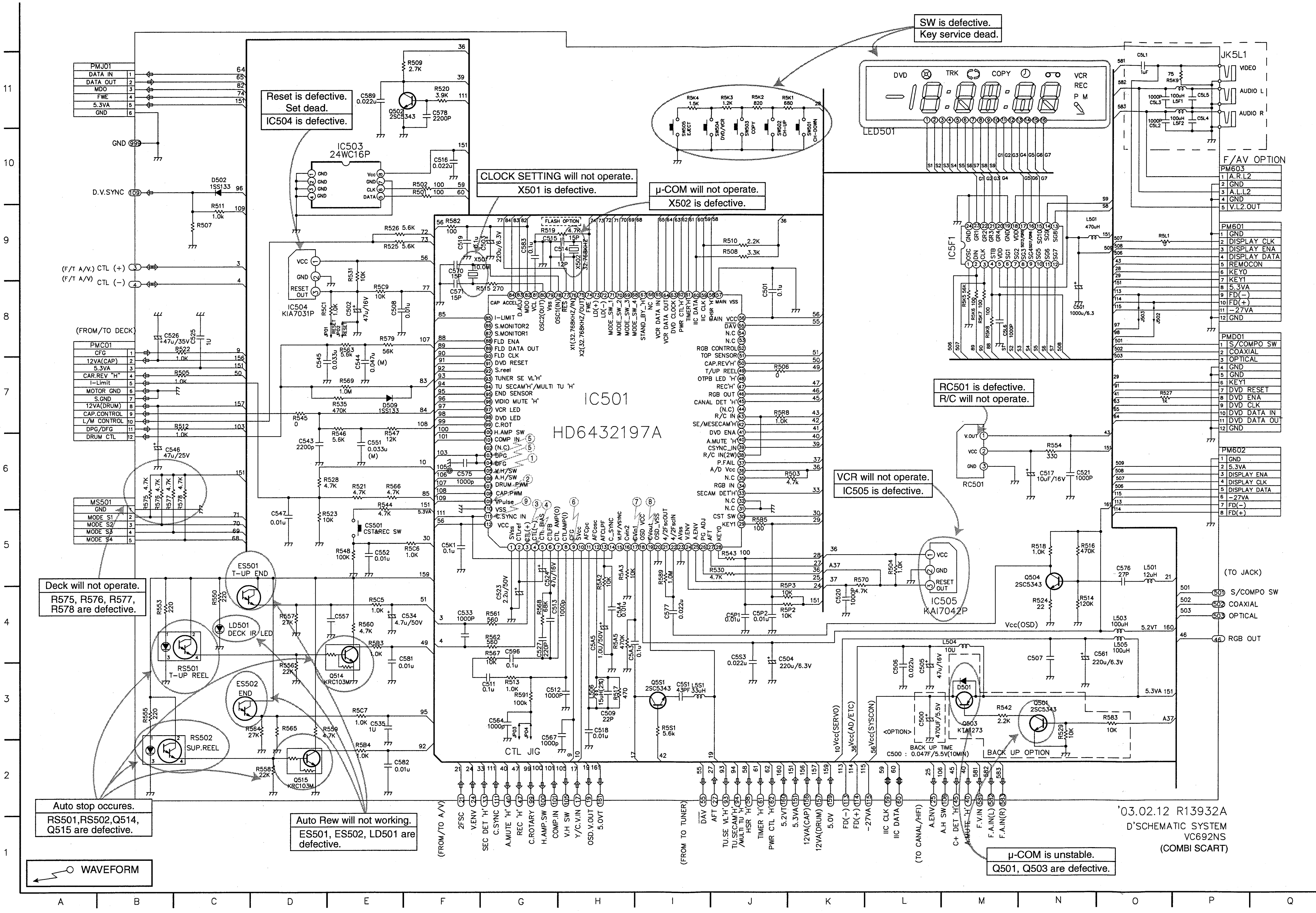
| | CANAL | 2-SCART |
|---|---|---|
| D901 | X | O |
| R901 | O | X |

LOCATION GUIDE

| | |
|---|---|
| BC91 | O9 |
| BC92 | M8 |
| C907 | I9 |
| C908 | I9 |
| C909 | I9 |
| C910 | I9 |
| C911 | M9 |
| C912 | M9 |
| C913 | L9 |
| C914 | L9 |
| C915 | K9 |
| C916 | K9 |
| C920 | O3 |
| C921 | O3 |
| C922 | L3 |
| C923 | L3 |
| C924 | M4 |
| C925 | N4 |
| C926 | E10 |
| C927 | E10 |
| C931 | D5 |
| C932 | D5 |
| C933 | D6 |
| C938 | C2 |
| C941 | B10 |
| C942 | C11 |
| D901 | N4 |
| D902 | N6 |
| F8A1 | H10 |
| J902 | E6 |
| J903 | E6 |
| J904 | E4 |
| J905 | E3 |
| J906 | E6 |
| J907 | E6 |
| J908 | E4 |
| JK902 | D12 |
| JK903 | B11 |
| L901 | O3 |
| L902 | M3 |
| L903 | L3 |
| L904 | M4 |
| L905 | L9 |
| L906 | L9 |
| L907 | L10 |
| L908 | I10 |
| L909 | I9 |
| L910 | L10 |
| PMD02 | B6 |
| Q901 | H3 |
| Q902 | H8 |
| Q903 | G8 |
| R901 | N3 |
| R902 | N2 |
| R903 | K8 |
| R904 | J10 |
| R905 | J9 |
| R906 | K9 |
| R907 | K9 |
| R908 | L8 |
| R909 | L8 |
| R910 | L7 |
| R911 | C2 |
| R913 | K3 |
| R914 | O10 |
| R915 | M10 |
| R919 | H2 |
| R920 | D3 |
| R921 | G7 |
| R922 | D7 |
| R923 | G7 |
| R924 | D7 |
| R925 | G7 |
| R926 | F4 |
| R927 | C5 |
| R928 | D3 |
| R929 | D5 |
| R930 | C5 |
| R931 | G9 |
| R932 | H9 |
| R933 | G10 |
| R934 | H10 |
| R935 | C10 |
| R936 | C10 |
| R937 | B10 |
| R938 | C10 |
| SC901 | P6 |
| SW901 | E4 |

'03.02.12 R13938A
D'SCHEMATIC SCART/SWITCH
VC682CS
(COMBI SCART)

# 6. SYSTEM CIRCUIT DIAGRAM


IC501
HD6432197A
IC503
24WC16P
IC504
KIA7031P
IC505
KAI7042P
IC5F1
LED501
JK5L1
RC501
X501
X502
Q501
2SC5343
Q502
2SC5343
Q503
KTA1273
Q504
2SC5343
Q514
KRC103M
Q515
KRC103M
ES501
T-UP END
ES502
END
LD501
DECK IR LED
RS501
T-UP REEL
RS502
SUP.REEL
PMJ01
PMC01
MS501
PM601
PM602
PM603
PMD01
F/AV OPTION
CTL JIG
BACK UP OPTION
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
1
2
3
4
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6
7
8
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10
11

SW is defective.
Key service dead.

Reset is defective.
Set dead.
IC504 is defective.

CLOCK SETTING will not operate.
X501 is defective.

μ-COM will not operate.
X502 is defective.

RC501 is defective.
R/C will not operate.

VCR will not operate.
IC505 is defective.

Deck will not operate.
R575, R576, R577, R578 are defective.

Auto stop occures.
RS501,RS502,Q514, Q515 are defective.

Auto Rew will not working.
ES501, ES502, LD501 are defective.

μ-COM is unstable.
Q501, Q503 are defective.

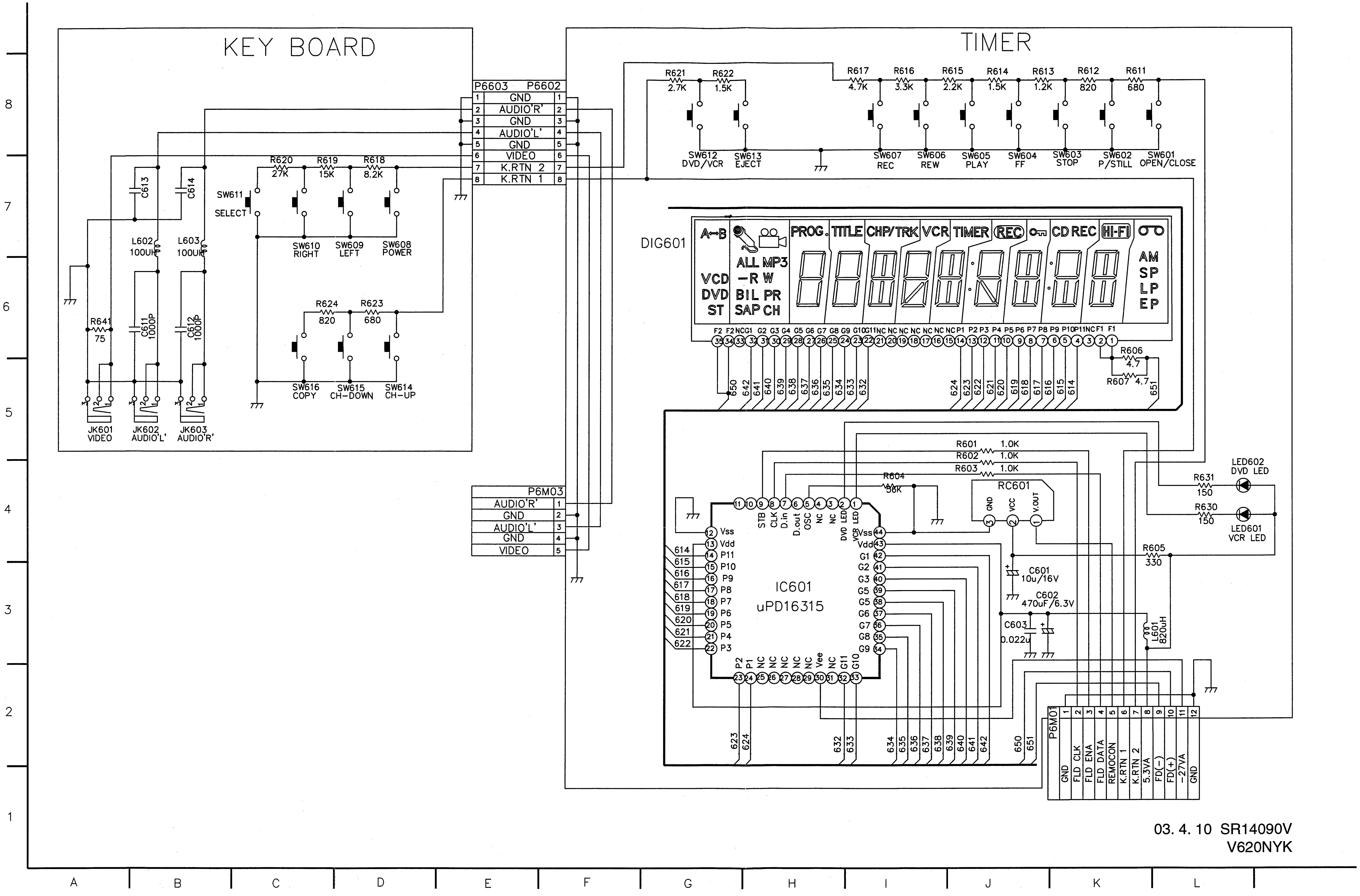
WAVEFORM

'03.02.12 R13932A
D'SCHEMATIC SYSTEM
VC692NS
(COMBI SCART)

LOCATION GUIDE

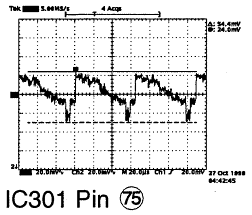
| | | | |
|---|---|---|---|
| C500 | L3 | Q515 | D2 |
| C501 | J8 | Q5S1 | I3 |
| C502 | E8 | R501 | F10 |
| C503 | G9 | R502 | F10 |
| C504 | J4 | R503 | J6 |
| C505 | L3 | R504 | L5 |
| C506 | L3 | R505 | C7 |
| C507 | N4 | R506 | J7 |
| C508 | E8 | R507 | C9 |
| C509 | H3 | R508 | J9 |
| C511 | G3 | R509 | F11 |
| C512 | G3 | R510 | J9 |
| C513 | G4 | R511 | C9 |
| C514 | G9 | R512 | C7 |
| C515 | G9 | R513 | G3 |
| C516 | F10 | R514 | N4 |
| C517 | N6 | R515 | F8 |
| C518 | H3 | R516 | N5 |
| C519 | F9 | R517 | H3 |
| C520 | K4 | R518 | N5 |
| C521 | N6 | R519 | G9 |
| C523 | G4 | R520 | F11 |
| C524 | G4 | R521 | E6 |
| C525 | C8 | R522 | C8 |
| C526 | B8 | R523 | D5 |
| C527 | G4 | R524 | N4 |
| C533 | F4 | R525 | E9 |
| C534 | E4 | R526 | E9 |
| C535 | E3 | R527 | O7 |
| C543 | D6 | R528 | D6 |
| C544 | E7 | R529 | N3 |
| C545 | D7 | R530 | I5 |
| C546 | B6 | R531 | E8 |
| C547 | D5 | R535 | E7 |
| C551 | E6 | R542 | M3 |
| C552 | E5 | R543 | J5 |
| C557 | E4 | R544 | E6 |
| C561 | N4 | R545 | D7 |
| C564 | G3 | R546 | E6 |
| C567 | G2 | R547 | E6 |
| C570 | F9 | R548 | E5 |
| C571 | F8 | R550 | C4 |
| C575 | F6 | R553 | B4 |
| C576 | O5 | R554 | N6 |
| C577 | I4 | R555 | B3 |
| C578 | F11 | R556 | D3 |
| C581 | E4 | R557 | D4 |
| C582 | E2 | R558 | D2 |
| C583 | G9 | R559 | D3 |
| C589 | E11 | R560 | E4 |
| C596 | G4 | R561 | G4 |
| C5A3 | H4 | R562 | G4 |
| C5A4 | H4 | R563 | E8 |
| C5A5 | H4 | R564 | C3 |
| C5G1 | N8 | R565 | D3 |
| C5K1 | F5 | R566 | E6 |
| C5L1 | O11 | R567 | G4 |
| C5L2 | O11 | R568 | G4 |
| C5L3 | O11 | R569 | E7 |
| C5L4 | P11 | R570 | K5 |
| C5L5 | P11 | R575 | B6 |
| C5L6 | M8 | R576 | B6 |
| C5P1 | J4 | R577 | B6 |
| C5P2 | J4 | R578 | C6 |
| C5S1 | I3 | R579 | E8 |
| C5S3 | J4 | R582 | F9 |
| CS501 | E5 | R583 | O3 |
| D501 | M3 | R589 | I5 |
| D502 | C10 | R591 | G3 |
| D509 | E7 | R5A2 | H4 |
| ES501 | C5 | R5A3 | H5 |
| ES502 | C3 | R5A5 | H4 |
| IC501 | H7 | R5B3 | E4 |
| IC503 | E10 | R5B4 | E2 |
| IC504 | D8 | R5B5 | J5 |
| IC505 | L4 | R5C1 | D8 |
| IC5F1 | M9 | R5C5 | E4 |
| J502 | O8 | R5C6 | F5 |
| J503 | O8 | R5C7 | E3 |
| JK5L1 | P11 | R5C9 | E8 |
| JP01 | E8 | R5K1 | J11 |
| JP02 | E8 | R5K2 | J11 |
| JP03 | G3 | R5K3 | J11 |
| JP04 | G3 | R5K4 | I11 |
| L501 | O5 | R5K5 | M8 |
| L503 | O4 | R5K6 | M8 |
| L504 | M4 | R5K7 | M8 |
| L505 | O4 | R5K8 | M8 |
| L506 | H3 | R5K9 | O11 |
| L5F1 | P11 | R5L1 | O9 |
| L5F2 | P11 | R5P2 | J4 |
| L5G1 | N9 | R5P3 | J4 |
| L5S1 | I3 | R5R8 | J7 |
| LD501 | C4 | R5S1 | I3 |
| LED501 | K10 | RC501 | M6 |
| MS501 | A6 | RS501 | C3 |
| PM601 | P9 | RS502 | C2 |
| PM602 | P6 | SW501 | K10 |
| PM603 | P10 | SW502 | J10 |
| PMC01 | A8 | SW503 | J10 |
| PMD01 | P8 | SW504 | J10 |
| PMJ01 | A11 | SW505 | I10 |
| Q501 | N3 | X501 | F9 |
| Q502 | E11 | X502 | H9 |
| Q503 | M3 | | |
| Q504 | N5 | | |
| Q514 | E3 | | |

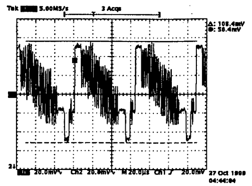
## 6. TIMER CIRCUIT DIAGRAM

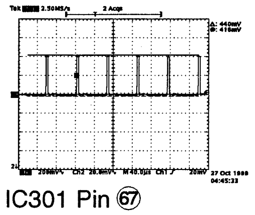

KEY BOARD
TIMER
P6603 P6602
1 GND 1
2 AUDIO'R' 2
3 GND 3
4 AUDIO'L' 4
5 GND 5
6 VIDEO 6
7 K.RTN 2 7
8 K.RTN 1 8
R620 27K
R619 15K
R618 8.2K
SW611 SELECT
SW610 RIGHT
SW609 LEFT
SW608 POWER
R624 820
R623 680
SW616 COPY
SW615 CH-DOWN
SW614 CH-UP
C613
C614
L602 100UH
L603 100UH
C611 1000P
C612 1000P
R641 75
JK601 VIDEO
JK602 AUDIO'L'
JK603 AUDIO'R'
P6M03
AUDIO'R' 1
GND 2
AUDIO'L' 3
GND 4
VIDEO 5
R621 2.7K
R622 1.5K
R617 4.7K
R616 3.3K
R615 2.2K
R614 1.5K
R613 1.2K
R612 820
R611 680
SW612 DVD/VCR
SW613 EJECT
SW607 REC
SW606 REW
SW605 PLAY
SW604 FF
SW603 STOP
SW602 P/STILL
SW601 OPEN/CLOSE
DIG601
A↔B PROG. TITLE CHP/TRK VCR TIMER REC CD REC HI-FI
ALL MP3 VCD -R W DVD BIL PR ST SAP CH
AM SP LP EP
F2 F2 NC G1 G2 G3 G4 G5 G6 G7 G8 G9 G10 G11 NC NC NC NC NC NC NC P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 NC F1 F1
R606 4.7
R607 4.7
650 642 641 640 639 638 637 636 635 634 633 632
624 623 622 621 620 619 618 617 616 615 614 651
R601 1.0K
R602 1.0K
R603 1.0K
R604 56K
RC601 GND VCC V.OUT
LED602 DVD LED
LED601 VCR LED
R631 150
R630 150
R605 330
C601 10u/16V
C602 470uF/6.3V
C603 0.022u
L601 820uH
IC601 uPD16315
STB CLK D.in D.out OSC NC NC DVD LED VCR LED
Vss Vdd P11 P10 P9 P8 P7 P6 P5 P4 P3
Vss Vdd G1 G2 G3 G5 G5 G6 G7 G8 G9
P2 P1 NC NC NC NC Vee NC G11 G10
614 615 616 617 618 619 620 621 622
623 624 632 633 634 635 636 637 638 639 640 641 642 650 651
P6M01
1 GND
2 FLD CLK
3 FLD ENA
4 FLD DATA
5 REMOCON
6 K.RTN 1
7 K.RTN 2
8 5.3VA
9 FD(-)
10 FD(+)
11 -27VA
12 GND
1 2 3 4 5 6 7 8
A B C D E F G H I J K L
03. 4. 10 SR14090V
V620NYK

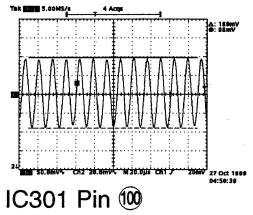
# WAVEFORM & VOLTAGE SHEET

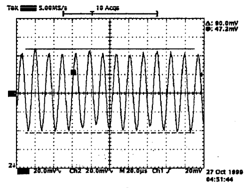
## ★ IC301 Oscilloscope Waveform

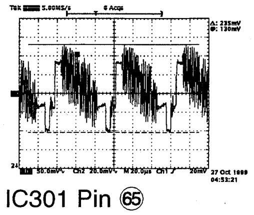
①

IC301 Pin (75)
PB mode
500mvp-p

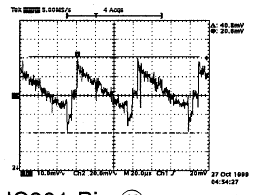
②

IC301 Pins ㊽,㊿, (52)
(54), (56)
Video in 1Vp-p

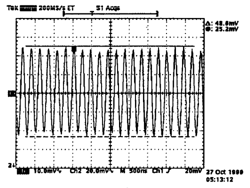
③

IC301 Pin (67)
PB/REC mode
4.0Vp-p

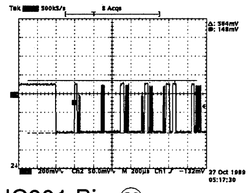
④

IC301 Pin (100)
REC mode
1.1Vp-p

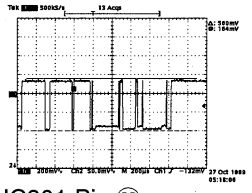
⑤

IC301 Pin ③
REC mode
2.0Vp-p

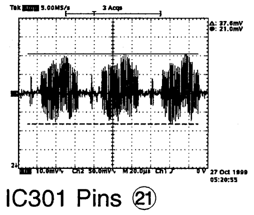
⑥

IC301 Pin (65)
PB mode
2.02Vp-p

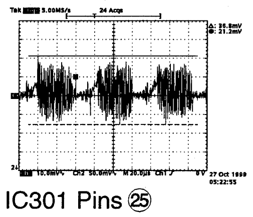
⑦

IC301 Pin ㊸
PB mode
400mVp-p

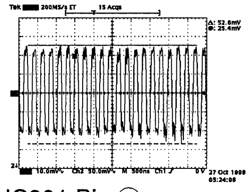
⑧

IC301 Pin ㉘
PB mode
400mVp-p

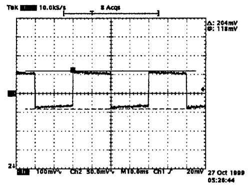
⑨

IC301 Pin (68)
PB/REC mode
5Vp-p

⑩

IC301 Pin (69)
PB/REC mode
5Vp-p

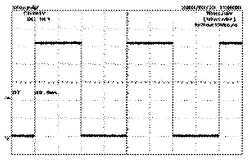
⑪

IC301 Pins ㉑
REC mode
340mVp-p

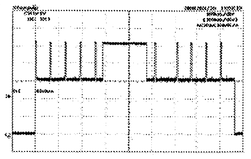
⑫

IC301 Pins ㉕
PB mode
300mVp-p

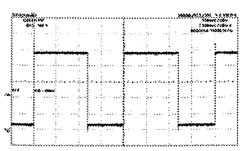
⑬

IC301 Pin ㉙
PB mode
400mVp-p

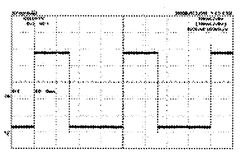
⑭

IC301 Pin (70)
PB mode
3.6Vp-p

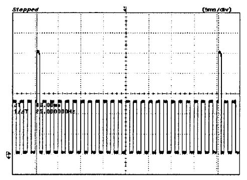
## * IC501 Waveform Photographs

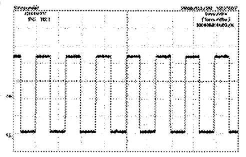
①

V.HSW
(IC501 Pin 105)
1V/10mS
REC/PB MODE

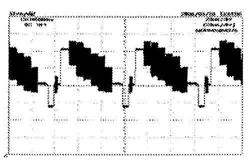
②

DV.SYNC
(IC501 PIN 109)
1V/100uS
QUE/REV MODE

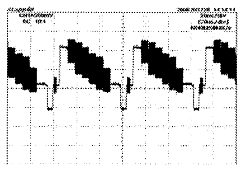
③

CTL(+)
(IC501 Pin 3)
1V/10mS

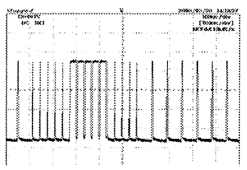
④

CTL(-)
(IC501 Pin4)
1V/10mS

⑤

DFG/DFG
(IC501 PIN 103,104)
1V/10mS
REC/PB MODE

⑥

CFG
(IC501 Pin9)
1V/10mS

⑦

V.IN
(IC501 Pin 17)
500mV/20uS

⑧

V.OUT
(IC501 Pin 19)
500mV/20uS
EE/PB MODE

⑨

C.SYNC
(IC501 Pin 111)
1.0V/100uS
EE/PB MODE

# • CIRCUIT VOLTAGE CHART

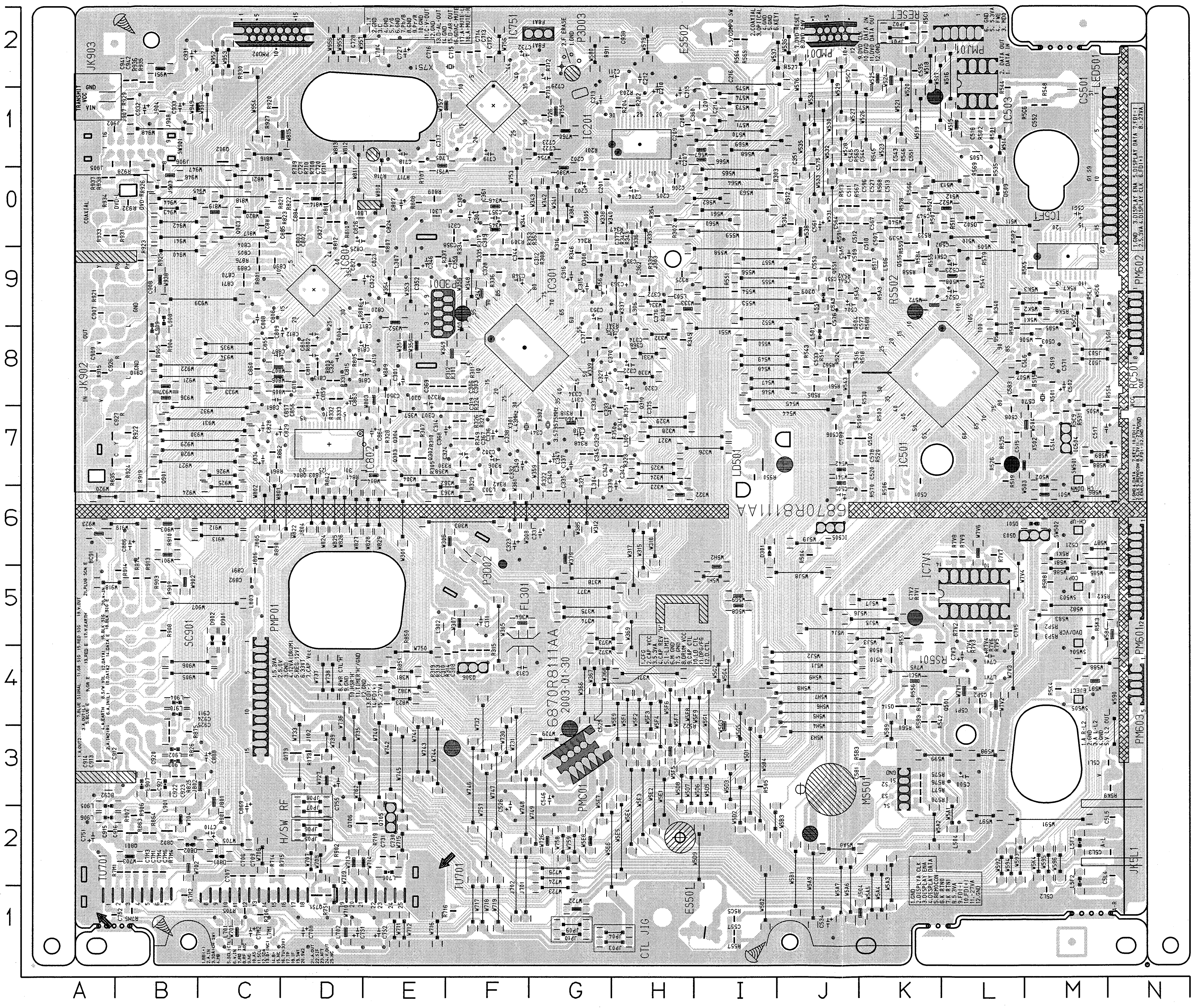
| MODE PIN NO. | EE | PB | REC |
|---|---|---|---|
| **IC201** | | | |
| 1 | 2.36 V | 2.35 V | 2.32 V |
| 2 | 2.4 V | 2.35 V | 2.4 V |
| 3 | 3.5 V | 3.49 V | 3.5 V |
| 4 | 2.43 V | 2.41 V | 2.38 V |
| 5 | 0.002 V | 0.005 V | 0.006 V |
| 6 | 0.4 V | 3.7 V | 0.39 V |
| 7 | 0.003 V | 0.003 V | 0.003 V |
| 8 | 0.003 V | 0.003 V | 0.003 V |
| 9 | 2.87 V | 2.85 V | 2.81 V |
| 10 | 2.36 V | 2.35V | 2.32 V |
| 11 | 3.16 V | 3.13 V | 3 V |
| 12 | 3 V | 1.7 V | 3.03 V |
| 13 | 4 V | 4 V | 4 V |
| 14 | 2.3 V | 2.3 V | 2.25 V |
| 15 | 2.98 V | 1.78 V | 2.93 V |
| 16 | 3.2 V | 3.2 V | 3.2 V |
| 17 | 0.15 V | 3.86 V | 0.017 V |
| 18 | 0.124 V | 3.38 V | 0.127 V |
| 19 | 2.23 V | 2.23 V | 2.23 V |
| 20 | 3 V | 3.3 V | 3.3 V |
| 21 | 1.84 V | 2.34 V | 2.35 V |
| 22 | 4.71 V | 0.002 V | 0.007 V |
| 23 | 4.72 V | 4.69 V | 4.64 V |
| 24 | 4.72 V | 4.69 V | 4.63 V |
| 25 | 2.37 V | 2.26 V | 2.37 V |
| 26 | 2.37 V | 2.25 V | 2.36 V |
| 27 | 3 V | 2.86 V | 3 V |
| 28 | 0.182 V | 0.187 V | 0.182 V |
| 29 | 0.46 V | 0.62 V | 0.85 V |
| 30 | 1.95 V | 1.94 V | 1.91 V |
| **IC301** | | | |
| 1 | 4.8 V | 4.84 V | 0.99 V |
| 2 | 0.11 V | 0.014 V | 0.81 V |
| 3 | 2.16 V | 2.16 V | 2.03 V |
| 4 | 0.69 V | 0.63 V | 1.73 V |
| 5 | 2.15 V | 2.15 V | 2.26 V |
| 6 | 2.16 V | 2.15 V | 2.06 V |
| 7 | 2.15 V | 2.15 V | 2.1 V |
| 8 | 2.15 V | 2.15 V | 2.1 V |
| 9 | 2.14 V | 2.14 V | 2.73 V |
| 10 | 2.16 V | 2.16 V | 2.66 V |
| 11 | 2.23 V | 2.27 V | 2.8 V |
| 12 | 1.56 V | 0.002 V | 2.0 V |
| 13 | 2.14 V | 2.14 V | 0.095 V |
| 14 | 0.022 V | 0.022 V | 2.05 V |
| 15 | 2.14 V | 2.14 V | 2.08 V |
| 16 | 4.85 V | 0.146 V | 4.68 V |
| 17 | 2.14 V | 2.14 V | 2.09 V |
| 18 | 4.8 V | 4.86 V | 4.73 V |
| 19 | 3.88 V | 3.92 V | 2.72 V |
| 20 | 2.31 V | 0.003 V | 0.006 V |
| 21 | 3 V | 1.68 V | 3.02 V |
| 22 | 3.2 V | 2.62 V | 3.2 V |
| 23 | 3.2 V | 2.55 V | 3.2 V |
| 24 | 4.85 V | 4.85 V | 4.75 V |
| 25 | 0.121 V | 3.4 V | 0.19 V |
| 26 | 1.65 V | 1.25 V | 1.6 V |
| 27 | 2.16 V | 2.1 V | 2.14 V |
| 28 | 3.75 V | 3.7 V | 3.66 V |
| 29 | 2.43 V | 2.46 V | 2.34 V |
| 30 | 0.002 V | 0.002 V | 0.005 V |
| 31 | 4.76 V | 4.58 V | 4.72 V |
| 32 | 4.68 V | 4.58 V | 4.71 V |
| 33 | 2.88 V | 2.86 V | 2.8 V |
| 34 | 0.061 V | 0.06 V | 0.061 V |
| 35 | 3.02 V | 2.34 V | 2.99 V |
| 36 | 3.5 V | 2.84 V | 3.4 V |
| 37 | 1.7 V | 1.76V | 1.61 V |
| 38 | 2 V | 2.05 V | 1.94 V |
| 39 | 8.65 V | 8.6 V | 8.38 V |
| 40 | 0.002 V | 0.003 V | 0.006 V |
| 41 | 0.002 V | 0.003 V | 0.006 V |
| 42 | 4.8 V | 4.8 V | 4.68 V |
| 43 | 2.4 V | 2.67 V | 2.17 V |
| 44 | 13.8 mV | 3.86 V | 0.03 V |
| 45 | 2.5 V | 2.52 V | 2.55 V |
| 46 | 2.6 V | 2.78 V | 2.64 V |
| 47 | 4.14 V | 4.14 V | 4.14 V |
| 48 | 3.3 V | 3.09 V | 3.30 V |
| 49 | 2.97 V | 2.93 V | 3.69 V |
| 50 | 1.93 V | 1.92 V | 1.92 V |
| 51 | 0.002 V | 0.003 V | 0.005 V |
| 52 | 1.93 V | 1.93 V | 1.92 V |
| 53 | 2.33 V | 2.33 V | 2.34 V |
| 54 | 1.93 V | 1.92 V | 1.92 V |
| 55 | 5.14 V | 5.14 V | 5.13 V |
| 56 | 2.24 V | 2.57 V | 2.22 V |
| 57 | 1.95 V | 2.28 V | 0.006 V |
| 58 | 3 V | 2.55 V | 3.01 V |
| 59 | 2.9 V | 2.93 V | 2.92 V |
| 60 | 1.47 V | 1.54 V | 1.48 V |
| 61 | 1.8 V | 2.44 V | 1.79 V |
| 62 | 0.087 V | 0.09 V | 0.088 V |
| 63 | 1.8 V | 2.55 V | 1.78 V |
| 64 | 0.002 V | 0.003 V | 0.006 V |
| 65 | 1.71 V | 0.002 V | 1.69 V |
| 66 | 0.002 V | 0.003 V | 0.006 V |
| 67 | 0.005 V | 0.07 V | 0.44 V |
| 68 | 4.8 V | 4.8 V | 4.78 V |
| 69 | 4.7 V | 4.7 V | 4.7 V |
| 70 | 7.75 V | 2.55 V | 5.55 V |
| 71 | 5.55 V | 0.008 V | 0.008 V |
| 72 | 4.84 V | 4.8 V | 4.72 V |
| 73 | 2.21 V | 2.2 V | 2.24 V |
| 74 | 2.45 V | 2.6 V | 2.43 V |
| 75 | 2.38 V | 0.72 V | 2.38 V |
| 76 | 2.4 V | 0.81 V | 2.39 V |
| 77 | 1.58 V | 1.6 V | 1.48 V |
| 78 | 2.44 V | 3.35 V | 2.33 V |
| 79 | 1.73 V | 1.67 V | 2.51 V |
| 80 | 0.98 V | 0.98 V | 4.46 V |
| 81 | 1.1 V | 1.13 V | 1.15 V |
| 82 | 0.003 V | 0.004 V | 0.006 V |
| 83 | 1.65 V | 1.03 V | 1.41 V |
| 84 | 0.258 V | 2.5 V | 0.014 V |
| 85 | 0.002 V | 0.003 V | 1.38 V |
| 86 | 0.251 V | 0.014 V | 1.98 V |
| 87 | 0.77 V | 0.78 V | 0.78 V |
| 88 | 0.77 V | 0.78 V | 0.77 V |
| 89 | 0.77 V | 0.78 V | 0.77 V |
| 90 | 0.77 V | 0.78 V | 0.77 V |
| 91 | 4.85 V | 4.83 V | 4.74 V |
| 92 | 2.1 mV | 0.004 V | 0.006 V |
| 93 | 1.7 V | 1.72 V | 3.94 V |
| 94 | 1.7 V | 1.71 V | 3.93 V |
| 95 | 1.7 V | 1.71 V | 3.92 V |
| 96 | 1.7 V | 1.71 V | 3.94 V |
| 97 | 0.002 V | 0.005 V | 0.006 V |
| 98 | 2.16 V | 2.16 V | 2.21 V |
| 99 | 2.16V | 2.16 V | 2.25 V |
| 100 | 2.16 V | 2.16 V | 2.31 V |
| **IC5F1** | | | |
| 1 | 2.33 V | 2.31 V | 2.3 V |
| 2 | 4.98 V | 4.9 V | 4.9 V |
| 3 | 5 V | 5 V | 5 V |
| 4 | 4.96 V | 4.9 V | 4.9 V |
| 5 | 4.89 V | 4.85 V | 4.8 V |
| 6 | 0.64 V | 0.59 V | 0.6 V |
| 7 | 0.64 V | 0.59 V | 0.6 V |
| 8 | 0.64 V | 0.61 V | 0.6 V |
| 9 | 0.73 V | 0.93 V | 0.96 V |
| 10 | 1 V | 0.92 V | 0.91 V |
| 11 | 0.72 V | 0.63 V | 0.92 V |
| 12 | 1.83 V | 1.84 V | 1.8 V |
| 13 | 0.73 V | 0.75 V | 0.72 V |
| 14 | 1.26 V | 1.22 V | 1.2 V |
| 15 | 1.26 V | 1.23 V | 1.1 V |
| 16 | 1.65 V | 1.63 V | 1.54 V |
| 17 | 1.58 V | 1.58 V | 1.42 V |
| 18 | 4.89 V | 4.8 V | 4.8 V |
| 19 | 0.002 V | 0.003 V | 0.003 V |
| 20 | 1.75 V | 1.63 V | 1.5 V |
| 21 | 1.7 V | 1.7 V | 1.5 V |
| 22 | 1.78 V | 1.71 V | 1.5 V |
| 23 | 1.73 V | 1.6 V | 1.41 V |
| 24 | 0.002 V | 0.003 V | 0.003 V |
| **IC751** | | | |
| 1 | 5.1 V | 5.1 V | 5.08 V |
| 2 | 1.5 V | 1.5 V | 1.51 V |
| 3 | 1.5 V | 1.5 V | 1.5 V |
| 4 | 0.002 V | 0.003 V | 0.003 V |
| 5 | 2.5 V | 2.46 V | 2.46 V |
| 6 | 2.44 V | 2. 44 V | 2.43 V |
| 7 | 1.84 V | 1.89 V | 2.06 V |
| 8 | 1.86 V | 0.004 V | 0.004 V |
| 9 | 1.86 V | 0.004 V | 0.004 V |
| 10 | 0.002 V | 0.003 V | 0.003 V |
| 11 | 5.12 V | 5.12 V | 5.11 V |
| 12 | 4.8 V | 4.8 V | 4.8 V |
| 13 | 4.7 V | 4.75 V | 4.7 V |
| 14 | 1.75V | 2.6 V | 2.59 V |
| 15 | 1.77 V | 2.6 V | 2.6 V |
| 16 | 1.77 V | 5 V | 5 V |
| 17 | 1.75 V | 1.5 V | 2.06 V |
| 18 | 1.75 V | 1.5 V | 2 V |
| 19 | 5 V | 5 V | 5 V |
| 20 | 0.003 V | 0.003 V | 0.003 V |
| 21 | 1.88 V | 1.58 V | 2 V |
| 22 | 5.1 V | 5.1 V | 5.11 V |
| 23 | 0.002 V | 0.005 V | 0.004 V |
| 24 | 0.002 V | 0.005 V | 0.005 V |
| 25 | 0.002 V | 0.003 V | 0.003 V |
| 26 | 0.05 V | 0.051 V | 0.051 V |
| 27 | 0.05 V | 0.05 V | 0.05 V |
| 28 | 0.002 V | 0.003 V | 0.005 V |
| 29 | 0.002 V | 0.003 V | 0.003 V |
| 30 | 2.78 V | 2.77 V | 2.76 V |
| 31 | 2.78 V | 1.9 V | 2.76 V |
| 32 | 0.002 V | 0.003 V | 0.005 V |
| 33 | 5.1 V | 5.09 V | 5.08 V |
| 34 | 4.06 V | 4.08 V | 4.06 V |
| 35 | 0.003 V | 0.003 V | 0.003 V |
| 36 | 2.77 V | 2.76 V | 2.76 V |
| 37 | 0.002 V | 0.002 V | 0.002 V |
| 38 | 0.002 V | 0.003 V | 0.002 V |
| 39 | 0.002 V | 0.003 V | 0.002 V |
| 40 | 2.76 V | 2.75 V | 2.75 V |
| 41 | 2.76 V | 2.75 V | 2.75 V |
| 42 | 2.59 V | 2.59 V | 2.6 V |
| 43 | 2.35 V | 2.35 V | 2.35 V |
| 44 | 0.003 V | 0.003 V | 0.003 V |
| **IC501** | | | |
| 1 | 0.002 V | 0.002 V | 0.002 V |
| 2 | 2.56 V | 2.55 V | 2.55 V |
| 3 | 2.56 V | 2.55 V | 2.9 V |
| 4 | 2.56 V | 2.55 V | 2 V |
| 5 | 2.56 V | 2.55 V | 2.55 V |
| 6 | 2.56 V | 2.56 V | 2.55 V |
| 7 | 2.64 V | 2.63 V | 2.6 V |
| 8 | 2.54 V | 2.53 V | 2.52 V |
| 9 | 0.064 V | 2.27 V | 2.26 V |
| 10 | 5.13 V | 5.12 V | 5.11 V |
| 11 | 1.69 V | 1.68 V | 1.66 V |
| 12 | 1.7 V | 1.7 V | 1.67 V |
| 13 | 2.32 V | 2 V | 2.3 V |
| 14 | 0.48 V | 0.08 V | 0.53 V |
| 15 | 1.28 V | 1.29 V | 1.36 V |
| 16 | 1.84 V | 1.83 V | 1,8 V |
| 17 | 2.32 V | 3 V | 2.26 V |
| 18 | 4.7 V | 4,7 V | 4.6 V |
| 19 | 2.19 V | 3 V | 2.13 V |
| 20 | 0.01 V | 0.009 V | 0.01 V |
| 21 | 2.2 V | 2.2 V | 2.16 V |
| 22 | 2.32 V | 2.3 V | 2.26 V |
| 23 | 0.01 V | 0.009 V | 0.01 V |
| 24 | 0.3 V | 2.84 V | 0.012 V |
| 25 | 0.08 V | 3.4 V | 0.068 V |
| 26 | 5.14 V | 5.13 V | 5.12 V |
| 27 | 4.2 V | 4.16 v | 3.93 V |
| 28 | 5.13 V | 5.13 V | 5.11 V |
| 29 | 5.13 V | 5.13 V | 5.11 V |
| 30 | 0.004 V | 0.002 V | 0.003 V |
| 31 | 0.002 V | 0.002 V | 0.002 V |
| 32 | 0.002 V | 0.002 V | 0.002 V |
| 33 | 0.18 V | 0.18 V | 0.18 V |
| 34 | 1.37 V | 1.3 V | 1.42 V |
| 35 | 5.14 V | 5.13 V | 5.1 V |
| 36 | 5.14 V | 5.13 V | 5.1 V |
| 37 | 4.74 V | 4.73 V | 4.7 V |
| 38 | 4.74 V | 4.75 V | 4.7 V |
| 39 | 2.45 V | 4.9 V | 2.33V |
| 40 | 5 V | 0.003 V | 4.96 V |
| 41 | 2.28 V | 1.55 V | 1.42 V |
| 42 | 0.003 V | 0.003 V | 0.004 V |
| 43 | 4.76 V | 4.75 V | 4.73 V |
| 44 | 0.003 V | 0.003 V | 0.004 V |
| 45 | (-)0.001 V | (-)0.001 V | (-)0.001 V |
| 46 | 0.003 V | 0.003 V | 0.004 V |
| 47 | 0.003 V | 0.003 V | 5 V |
| 48 | 0.003 V | 0.003 V | 0.004 V |
| 49 | 5.14 V | 0~5 V | 0.005~5 V |
| 50 | 5.1 V | 0.003 V | 0.004 V |
| 51 | 4.38 V | 0.03 V | 0.035 V |
| 52 | 0.031 V | 5.06 V | 0.038 V |
| 53 | 0.003 V | 0.003 V | 0.004 V |
| 54 | 5.1 V | 5 V | 5 V |
| 55 | 5.1 V | 5.13 V | 5.11 V |
| 56 | 5.1 V | 5,1 V | 5.1 V |
| 57 | 0.002 V | 0.002 V | 0.002 V |
| 58 | 0.003 V | 0.004 V | 0.004 V |
| 59 | 4.8 V | 4.8 V | 4.8 V |
| 60 | 4.7 V | 4.7 V | 4.9 V |
| 61 | 4.7 V | 5 V | 5 V |
| 62 | 5 V | 5 V | 5 V |
| 63 | 1.8 V | 1.3 V | 1.68 V |
| 64 | 5.1 V | 5 V | 5 V |
| 65 | 1.78 V | 5.1 V | 1.66 V |
| 66 | 5.1 V | 5.1 V | 5.08 V |
| 67 | 0.004 V | 4.4 V | 5.08 V |
| 68 | 0.001 V | 5.1 V | 0.005 V |
| 69 | 0.001 V | 5.1 V | 5.12 V |
| 70 | 5.14 V | 5.1 V | 5.12 V |
| 71 | 5.14 V | 0.001 V | 0.001 V |
| 72 | 0.028 V | 0.028 V | 0.029 V |
| 73 | 5 V | 5.1 V | 5.04 V |
| 74 | 0.001 V | 0.001 V | 0.002 V |
| 75 | 1.5 V | 1.93 V | 1.48 V |
| 76 | 1.7 V | 2.02 V | 1.44 V |
| 77 | 5.1 V | 5.1 V | 5.08 V |
| 78 | 2.5 V | 2.51 V | 2.52 V |
| 79 | 0.001 V | 0.002 V | 0.002 V |
| 80 | 2.53 V | 2.5 V | 2.5 V |
| 81 | 3.2 V | 3.2 V | 3.19 V |
| 82 | 5.12 V | 5.1 V | 5.1 V |
| 83 | 0.172 V | 2.68 V | 2.55 V |
| 84 | 0.004 V | 2.4 V | 2.69 V |
| 85 | 0.019 V | 3.4 V | 3.44 V |
| 86 | 2.55 V | 2.55 V | 2.56 V |
| 87 | 5.11 V | 3.1 V | 2.29 V |
| 88 | 5.11 V | 4.95 V | 4.9 V |
| 89 | 5.11 V | 4.97 V | 4.9 V |
| 90 | 5.11 V | 5 V | 4.98 V |
| 91 | 5.11 V | 5.1 V | 5.09 V |
| 92 | 5.12 V | 0.008~0.05 V | 0.006 V |
| 93 | 0.005 V | 0.005 V | 0.006 V |
| 94 | 0.005 V | 0.005 V | 0.013 V |
| 95 | 4.38 V | 0.05 V | 0.012 V |
| 96 | 0.005 V | 0.005 V | 0.006 V |
| 97 | 5.11 V | 5.1 V | 5.09 V |
| 98 | 0.005 V | 5.3 V | 0.006 V |
| 99 | 5.11 V | 2.55 V | 2.52 V |
| 100 | 0.005 V | 0.005 V | 0.006 V |
| 101 | 1.51 V | 2.6 V | 1.31 V |
| 102 | 0.005 V | 0.006 V | 0.006 V |
| 103 | 0.099 V | 1.36 V | 1.38 V |
| 104 | 0.099 V | 1.36 V | 1.36 V |
| 105 | 5.11 V | 2.55 V | 2.53 V |
| 106 | 0.005 V | 2.54 V | 2.53 V |
| 107 | 0.005 V | 2.75 V | 2.75 V |
| 108 | 0.005 V | 2.81 V | 2.79 V |
| 109 | 0.049 V | 50.6 V | 0.05 V |
| 110 | 0.002 V | 0.002 V | 0.002 V |
| 111 | 0.48 V | 0.6 V | 0.55 V |
| 112 | 5.12 V | 5.11 V | 5.1 V |
| **IC801** | | | |
| 1 | 3.8 V | 3.81 V | 3.82 V |
| 2 | 3.8 V | 3.82 V | 3.82 V |
| 3 | 3.8 V | 3.82 V | 3.82 V |
| 4 | 3.8 V | 3.82 V | 3.82 V |
| 5 | 3.8 V | 3.82 V | 3.82 V |
| 6 | 3.8 V | 3.82 V | 3.82 V |
| 7 | 3.8 V | 3.82 V | 3.82 V |
| 8 | 3.8 V | 3.82 V | 3.82 V |
| 9 | 3.8 V | 3.82 V | 3.82 V |
| 10 | 3.8 V | 3.82 V | 3.82 V |
| 11 | 3.8 V | 3.82 V | 3.82 V |
| 12 | 0.054 V | ~ | 0.048 V |
| 13 | 3.87 V | 3.8 V | 3.99 V |
| 14 | 0.008 V | 0.003 V | 0.011 V |
| 15 | 0.008 V | 0.006 V | 0.01 V |
| 16 | 6 V | 6.07 V | 6.07 V |
| 17 | 6 V | 6.07 V | 6.08 V |
| 18 | 7 V | 6.07 V | 0.11 V |
| 19 | 6 V | 6.06 V | 0.028V |
| 20 | 6 V | 6.07 V | 6.07 V |
| 21 | 4.58 V | 4.57 V | 5.9 V |
| 22 | 3.82 V | 3.82 V | 3.82 V |
| 23 | 3.86 V | 3.84 V | 3.86 V |
| 24 | 3.87 V | 3.84 V | 3.87 V |
| 25 | 3.87 V | 3.9 V | 3.87 V |
| 26 | 0.76 V | 0.003 V | 0.76 V |
| 27 | 0.001 V | 0.003 V | 0.005 V |
| 28 | 3.84 V | 3.83 V | 3.83 V |
| 29 | 3.86 V | 3.86 V | 3.86 V |
| 30 | 0.77 V | 0.76V | 0.76 V |
| 31 | 3.87 V | 3.87 V | 3.86 V |
| 32 | 3.86 V | 3.87 V | 3.87 V |
| 33 | 3.86 V | 3.86 V | 3.86 V |
| 34 | 11.84 V | 11.76 V | 11.77 V |
| 35 | 0.64 V | 0.44 V | 4.3 V |
| 36 | 0.64 V | 0.62 V | 4.3 V |
| 37 | 0.64 V | 0.63 V | 4.28 V |
| 38 | 0.005 V | 0.008 V | 4.32 V |
| 39 | 0.002 V | 0.005 V | 0.006 V |
| 40 | 5 V | 5.07 V | 5.05 V |
| 41 | 0.005 V | 0.92 V | 0.92 V |
| 42 | 4.7 V | 4.7 V | 4.7 V |
| 43 | 4.8 V | 4.8 V | 4.8 V |
| 44 | 0.078 V | 3.3 V | 0.068 V |
| **IC802** | | | |
| 1 | 3 V | 2.93 V | 3.05 V |
| 2 | 11.8 V | 11.76 V | 11.76 V |
| 3 | 2.74 V | 2.74 V | 2.74 V |
| 4 | 11.8 V | 11.75 V | 11.76 V |
| 5 | 2.74 V | 2.75 V | 2.75 V |
| 6 | 5.5V | 5.5 V | 5.5 V |
| 7 | 5.6 V | 5.56 V | 5.57 V |
| 8 | 5.5 V | 5.5 V | 5.49 V |
| 9 | 5 V | 0.006 V | 4.97 V |
| 10 | 5.5 V | 5.5 V | 5.5 V |
| 11 | 11.23 V | 11.15 V | 11.16 V |
| 12 | 5.5 V | 5.5 V | 5.5 V |
| 13 | 0.008 V | 0.01 V | 0.009 V |
| 14 | 5.54 V | 5.5 V | 5.5 V |
| 15 | 0.008 V | 0.009 V | 0.009 V |
| 16 | 5.5 V | 5.5 V | 5.51 V |
| 17 | 0.002 V | 0.003 V | 0.005 V |
| 18 | 0.002 V | 0.005 V | 0.004 V |
| 19 | (-)0.001 V | 0.001 V | 0.001 V |
| 20 | 5.5 V | 5.5 V | 5.51 V |
| 21 | 5.6 V | 5.59 V | 5.59 V |
| 22 | 5.6 V | 5.59 V | 5.59 V |
| 23 | 5.6 V | 5.51 V | 5.52 V |
| 24 | 5.54 V | 5.5 V | 5.5 V |

| MODE<br>PIN NO. | EE | PB | REC |
|---|---|---|---|
| 25 | 5.6 V | 5.58 V | 5.59 V |
| 26 | 5.6 V | 5.58 V | 5.59 V |
| 27 | 5.54 V | 5.5 V | 5.5 V |
| 28 | 4.16 V | 4.32 V | 4.51 V |
| 29 | 1.46 V | 1.46 V | 1.46 V |
| 30 | 2.1 V | 1.99 V | 2.07 V |
| 31 | 1.35 V | 1.35 V | 1.35 V |
| 32 | 4.7 V | 4.7 V | 4.7 V |
| 33 | 4.8 V | 4.8 V | 4.8 V |
| 34 | (-) 0.002 V | 0.001 V | 0.000 V |

| PIN | EE | PB | REC |
|---|---|---|---|
| **Q301** | | | |
| BASE | 0.01 V | 0.013 V | 0.79 V |
| EMITER | 0.003 V | 0.004 V | 0.005 V |
| COLECTOR | 4.83 V | 4.82 V | 1.02 V |
| **Q302** | | | |
| BASE | 4.85 V | 4.18 V | 4.75 V |
| EMITER | 0.002 V | 4.85 V | 4.75 V |
| COLECTOR | (-)2.79 V | 4.8 V | (-)25.5 V |
| **Q303** | | | |
| BASE | (-)2.76 V | 0.7 V | (-)25.6 V |
| EMITER | (-)0.8 V | 0.007 V | (-)19.13 V |
| COLECTOR | 0.002 V | 0.012 V | 0.004 V |
| **Q304** | | | |
| BASE | (-)2.62 V | 0.72 V | (-)25.4 V |
| EMITER | 0.002 V | 0.002 V | (-)19.4 V |
| COLECTOR | 0.002 V | 0.004 V | 0.004 V |
| **Q305** | | | |
| BASE | 1.71 V | 1.41 V | 1.7 V |
| EMITER | 2.41 V | 2.1 V | 2.39 V |
| COLECTOR | 0.003 V | 0.004 V | 0.005 V |
| **Q308** | | | |
| BASE | 1.81 V | 01.56 V | 6.07 V |
| EMITER | 2.47 V | 6.06 V | 6.07 V |
| COLECTOR | 0.005 V | 0.005 V | 0.005 V |
| **Q309** | | | |
| BASE | 2.18 V | 2.01 V | 2.33 V |
| EMITER | 2.87 V | 2.7 V | 3 V |
| COLECTOR | 0.012 V | 0.005 V | 0.012 V |
| **Q310** | | | |
| BASE | 0.02 V | 3.89 V | 0.017 V |
| EMITER | 0.005 V | 0.004 V | 0.005 V |
| COLECTOR | 2.92 V | 0.008 V | 2.91 V |
| **Q501** | | | |
| BASE | 0.69 V | 0.69 V | 0.69 V |
| EMITER | 0.002 V | 0.003 V | 0.003 V |
| COLECTOR | 0.02 V | 0.012 V | 0.023 V |
| **Q502** | | | |
| BASE | 0.31 V | 0.38 V | 0.33 V |
| EMITER | 0.004 V | 0.004 V | 0.004 V |
| COLECTOR | 2.65 V | 1.93 V | 2.4 V |
| **Q504** | | | |
| BASE | 0.59 V | 0.51 V | 0.50 V |
| EMITER | 0.03 V | 0.03 V | 0.03 V |
| COLECTOR | 3.78 V | 3.75 V | 3.71 V |
| **Q5S1** | | | |
| BASE | 0.006 V | 0.005 V | 0.003 V |
| EMITER | 1.77 V | 1.8 V | 1.89 V |
| COLECTOR | 2.41 V | 2.1 V | 2.4 V |
| **Q515** | | | |
| BASE | 4.94 V | 0.5~4.3 V | 0.4~4.9 V |
| EMITER | 0.002 V | 0.003 V | 0.005 V |
| COLECTOR | 0.02 V | 0.2~3.5 V | 0.4~4.9 V |
| **Q514** | | | |
| BASE | 4.96 V | 0.8~4.2 V | 0.2~4.3 V |
| EMITER | 0.002 V | 0.002 V | 0.003 V |
| COLECTOR | 0.02 V | 0.01~4.8V | 0.011 V |
| **Q7S1** | | | |
| BASE | 0.007 V | 0.007 V | 0.008 V |
| EMITER | 0.001 V | 0.001 V | 0.001 V |
| COLECTOR | 3.7 V | 3.5 V | 0.057 V |
| **Q801** | | | |
| BASE | 0.7 V | (-)0.1 V | 0.01 V |
| EMITER | 0.001 V | 0.003 V | 0.001 V |
| COLECTOR | 0.004 V | ~ | 0.006 V |
| **Q802** | | | |
| BASE | 0.7 V | (-)0.12 V | 0.7 V |
| EMITER | 0.001 V | 0.001 V | 0.001 V |
| COLECTOR | 0.004 V | 0.02 V | 0.005 V |
| **Q804** | | | |
| BASE | 1.81 V | 2.5 V | 1.79 V |
| EMITER | 2.5 V | 3.20V | 2.48 V |
| COLECTOR | 0.002 V | 0 V | 0 V |
| **Q901** | | | |
| BASE | 0.005 V | 0.005 V | 0.006 V |
| EMITER | 0.003 V | 2.04 V | 1.9 V |
| COLECTOR | 0.003 V | 0.004 V | 0.005 V |
| **Q902** | | | |
| BASE | (-)1.64 V | (-)1.69 V | (-)1.79 V |
| EMITER | 0.003 V | 0.004 V | 0.004 V |
| COLECTOR | 0.004 V | 0.004 V | 0.005 V |
| **Q903** | | | |
| BASE | (-)1.74 V | (-)1.63 V | (-)1.8 V |
| EMITER | 0.003 V | 0.003 V | 0.005 V |
| COLECTOR | 0.003 V | 0.004 V | 0.005 V |

# PRINTED CIRCUIT DIAGRAMS

## 1. MAIN P.C.BOARD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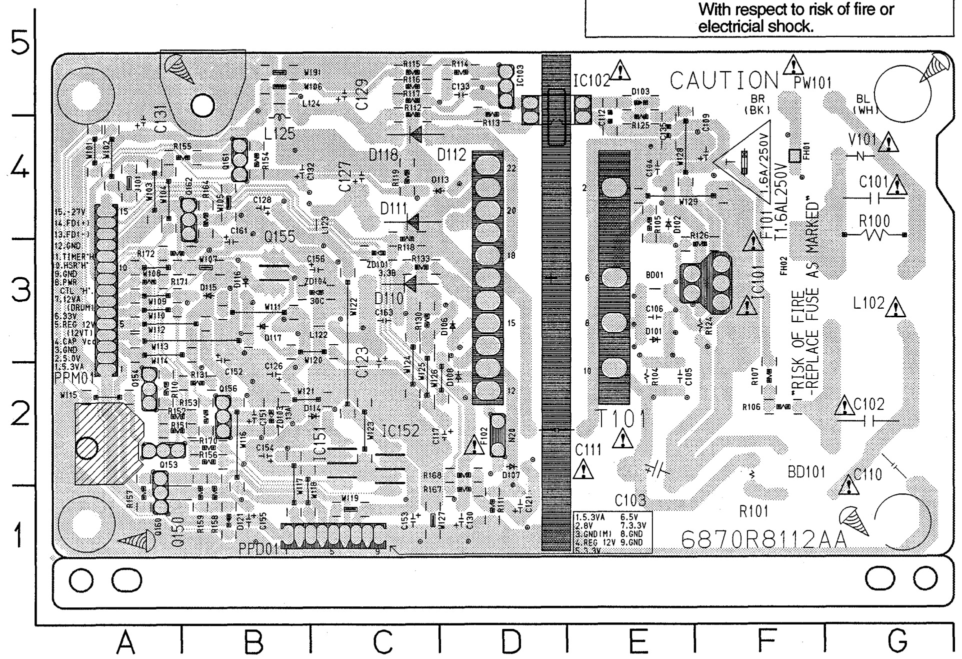
JK902
SC901
PMP01
TU701
H/SW RF
IC801
IC802
IC301
P3D01
P3D02
P3D03
FL301
PMC01
IC201
X751
IC751
ES502
PMD01
PMJ01
IC503
CS501
LED501
IC5F1
PM602
RC501
PM601
PM603
IC501
LD501
RS502
RS501
IC7V1
MS501
ES501
JK5L1
6870R8111AA
2003-01-30
CTL JIG
RESET

### LOCATION GUIDE

| | |
|---|---|
| BC91 | A6 |
| BC92 | A3 |
| C203 | G10 |
| C204 | H10 |
| C207 | H11 |
| C210 | H11 |
| C211 | H12 |
| C212 | H12 |
| C213 | G11 |
| C215 | H11 |
| C301 | E8 |
| C302 | F7 |
| C304 | F10 |
| C307 | E8 |
| C311 | F5 |
| C313 | F4 |
| C314 | E7 |
| C315 | G9 |
| C316 | G9 |
| C318 | G7 |
| C320 | H8 |
| C322 | H8 |
| C323 | F6 |
| C324 | F7 |
| C325 | H8 |
| C327 | G8 |
| C331 | G6 |
| C333 | G7 |
| C336 | F7 |
| C337 | G7 |
| C339 | H6 |
| C346 | E9 |
| C347 | G7 |
| C348 | F9 |
| C349 | F7 |
| C353 | G9 |
| C356 | G9 |
| C357 | F10 |
| C359 | F9 |
| C362 | H9 |
| C500 | L3 |
| C502 | M8 |
| C503 | M8 |
| C504 | J9 |
| C505 | J6 |
| C517 | M7 |
| C523 | L9 |
| C524 | L9 |
| C526 | F2 |
| C534 | J1 |
| C546 | G3 |
| C561 | J10 |
| C5A5 | J9 |
| C5G1 | M10 |
| C708 | D1 |
| C710 | C2 |
| C718 | E11 |
| C719 | F11 |
| C727 | E12 |
| C729 | G12 |
| C732 | F12 |
| C751 | A2 |
| C755 | D3 |
| C7M2 | C1 |
| C7S1 | D1 |
| C7S2 | E1 |
| C7V1 | L4 |
| C7V3 | L4 |
| C806 | C9 |
| C807 | E10 |
| C808 | C9 |
| C809 | D8 |
| C812 | D8 |
| C814 | D8 |
| C815 | D8 |
| C816 | E8 |
| C817 | E9 |
| C818 | E8 |
| C820 | E9 |
| C822 | E9 |
| C825 | D10 |
| C828 | C7 |
| C829 | C7 |
| C834 | C7 |
| C859 | D8 |
| C861 | C8 |
| C863 | D8 |
| C864 | E7 |
| C869 | C2 |
| C886 | B6 |
| C887 | C8 |
| C888 | C3 |
| C931 | B12 |
| C932 | B11 |
| C933 | B11 |
| CS501 | M11 |
| D301 | I6 |
| D501 | M6 |
| D502 | L10 |
| D509 | L10 |
| D801 | C2 |
| D802 | B2 |
| D901 | C5 |
| D902 | C5 |
| ES501 | H1 |
| ES502 | I12 |
| F8A1 | G12 |
| FL301 | G5 |
| IC501 | L8 |
| IC503 | L12 |
| IC504 | M7 |
| IC505 | J6 |
| IC7V1 | L5 |
| J502 | M8 |
| J503 | M8 |
| J504 | K1 |
| J701 | F2 |
| J702 | F2 |
| J801 | C3 |
| J802 | C3 |
| J804 | D6 |
| JK5L1 | N3 |
| JK902 | B8 |
| JK903 | A11 |
| JP01 | K12 |
| JP02 | K12 |
| JP03 | H1 |
| JP04 | H1 |
| JP05 | D2 |
| JP06 | D2 |
| JP07 | D2 |
| JP08 | D3 |
| JP09 | G1 |
| JP10 | G1 |
| L201 | I11 |
| L301 | E10 |
| L302 | E5 |
| L303 | F6 |
| L304 | G7 |
| L305 | H7 |
| L306 | H9 |
| L307 | E9 |
| L501 | J8 |
| L503 | H9 |
| L504 | L2 |
| L505 | L11 |
| L506 | K9 |
| L5F1 | M2 |
| L5F2 | M2 |
| L5G1 | N9 |
| L5S1 | J9 |
| L701 | C1 |
| L702 | D1 |
| L704 | E12 |
| L705 | E11 |
| L706 | E2 |
| L7M1 | C1 |
| L7V1 | L4 |
| L801 | D10 |
| L803 | C5 |
| L901 | B3 |
| L902 | B3 |
| L903 | B3 |
| L904 | B4 |
| L905 | A2 |
| L906 | A2 |
| L907 | B3 |
| L908 | B9 |
| L909 | B8 |
| L910 | B4 |
| LD501 | I7 |
| LED501 | N11 |
| MS501 | K3 |
| P3D01 | E8 |
| P3D02 | F6 |
| P3D03 | G12 |
| PM601 | N6 |
| PM602 | N9 |
| PM603 | N4 |
| PMC01 | G3 |
| PMD01 | J12 |
| PMD02 | C12 |
| PMJ01 | L12 |
| PMP01 | C5 |
| Q306 | F4 |
| Q503 | M6 |
| Q705 | E2 |
| RC501 | N8 |
| RS501 | K5 |
| RS502 | K9 |
| SC901 | A4 |
| SW501 | M7 |
| SW502 | M6 |
| SW503 | M5 |
| SW504 | M5 |
| SW505 | M4 |
| SW901 | A11 |
| TU701 | A1 |
| X301 | F7 |
| X302 | G7 |
| X501 | M8 |
| X502 | M7 |
| X751 | F12 |

## 2. SMPS P.C.BOARD

NOTES) ⚠ Warning
Parts that are shaded are critical
With respect to risk of fire or
electricial shock.

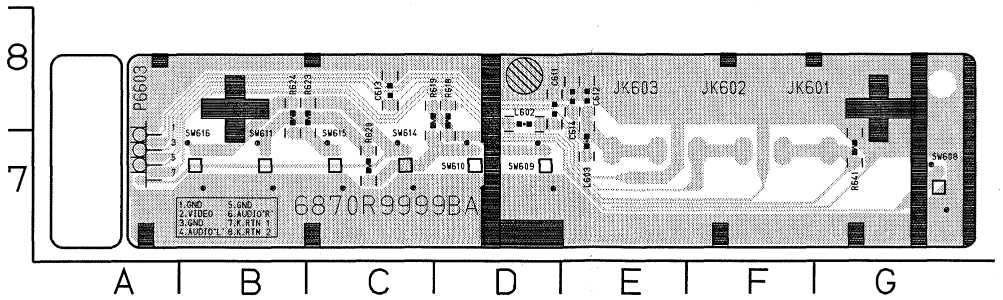


CAUTION
PW101
IC102
BR (BK)
BL (WH)
V101
C101
R100
L102
C102
C110
BD101
R101
C103
C111
T101
F101
1.6A/250V
T1.6AL250V
IC101
"RISK OF FIRE REPLACE FUSE AS MARKED"
BD01
6870R8112AA
C131
L125
C129
C127
D118
D112
D111
D110
Q155
IC152
IC151
PPM01
PPD01
Q150
A
B
C
D
E
F
G
1
2
3
4
5

LOCATION GUIDE

| | | | |
|---|---|---|---|
| BD01 | E3 | L122 | C3 |
| BD101 | F2 | L123 | C4 |
| C101 | G4 | L124 | B5 |
| C102 | G2 | L125 | B4 |
| C103 | E2 | PPD01 | B1 |
| C104 | E4 | PPM01 | A2 |
| C105 | E2 | PW101 | F5 |
| C106 | E3 | Q150 | A1 |
| C109 | F4 | Q153 | A2 |
| C110 | G2 | Q154 | A2 |
| C111 | D2 | Q155 | B3 |
| C112 | E4 | Q156 | B2 |
| C117 | D2 | Q160 | A1 |
| C121 | D1 | Q161 | B4 |
| C123 | C2 | Q162 | B4 |
| C126 | B2 | R100 | G4 |
| C127 | C4 | R101 | F2 |
| C128 | B4 | R104 | E2 |
| C129 | C5 | R105 | E4 |
| C130 | D1 | R106 | F2 |
| C131 | A4 | R107 | F2 |
| C132 | B4 | R110 | A2 |
| C133 | D5 | R111 | D1 |
| C135 | E4 | R112 | C4 |
| C151 | B2 | R113 | D4 |
| C152 | B3 | R114 | D5 |
| C153 | C1 | R115 | C5 |
| C154 | B2 | R116 | C5 |
| C155 | B1 | R117 | C5 |
| C156 | C3 | R118 | C3 |
| C161 | B3 | R119 | C4 |
| C163 | C3 | R124 | F3 |
| D101 | E3 | R125 | E4 |
| D102 | E4 | R126 | F3 |
| D103 | E5 | R130 | C3 |
| D106 | D3 | R131 | B2 |
| D107 | D2 | R133 | C3 |
| D108 | D2 | R151 | A2 |
| D110 | C3 | R152 | A2 |
| D111 | C4 | R153 | B2 |
| D112 | C4 | R154 | B4 |
| D113 | C4 | R155 | B4 |
| D114 | C2 | R156 | B2 |
| D115 | B3 | R157 | A1 |
| D116 | B3 | R158 | B1 |
| D117 | B3 | R159 | B1 |
| D118 | C4 | R164 | B4 |
| D121 | B1 | R167 | D1 |
| F102 | D2 | R168 | D2 |
| FH01 | F4 | R170 | B2 |
| FH02 | F3 | R171 | A3 |
| IC101 | F3 | R172 | A3 |
| IC102 | D4 | T101 | D3 |
| IC103 | D5 | V101 | G4 |
| IC151 | C2 | ZD101 | C3 |
| IC152 | C2 | ZD103 | B2 |
| J101 | A4 | ZD104 | C3 |
| L102 | G3 | | |

## 3. KEY(LEFT) P.C.BOARD

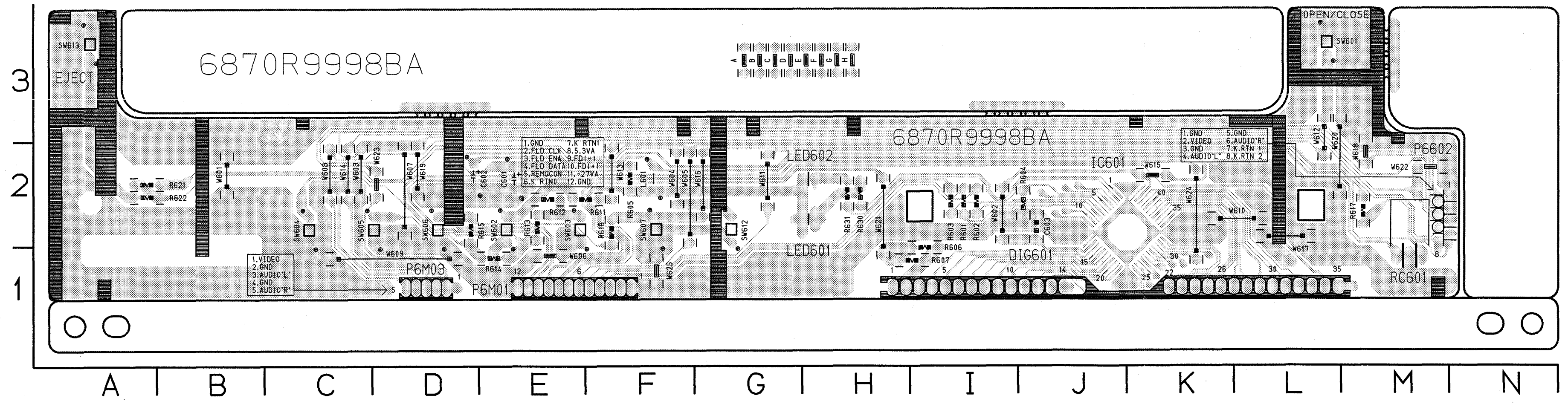


P6603
JK603
JK602
JK601
SW616
SW611
SW615
SW614
SW610
SW609
SW608
L602
1.GND 5.GND
2.VIDEO 6.AUDIO"R"
3.GND 7.K.RTN 1
4.AUDIO"L" 8.K.RTN 2
6870R9999BA
A
B
C
D
E
F
G
7
8

LOCATION GUIDE

| | | | |
|---|---|---|---|
| C611 | D8 | R620 | C7 |
| C612 | E8 | R623 | C8 |
| C613 | C8 | R624 | B8 |
| C614 | E8 | R641 | G7 |
| JK601 | F7 | SW608 | G7 |
| JK602 | F7 | SW609 | D7 |
| JK603 | E7 | SW610 | D7 |
| L602 | D8 | SW611 | B7 |
| L603 | E7 | SW614 | C7 |
| P6603 | A8 | SW615 | C7 |
| R618 | D8 | SW616 | B7 |
| R619 | C8 | | |

## 4. KEY(RIGHT) P.C.BOARD



SW613
EJECT
6870R9998BA
OPEN/CLOSE
SW601
6870R9998BA
LED602
IC601
LED601
DIG601
P6602
RC601
P6M03
P6M01
1.VIDEO
2.GND
3.AUDIO"L"
4.GND
5.AUDIO"R"
1.GND 7.K RTN1
2.FLD CLK 8.5.3VA
3.FLD ENA 9.FD(-)
4.FLD DATA 10.FD(+)
5.REMOCON 11.-27VA
6.K RTN2 12.GND
1.GND 5.GND
2.VIDEO 6.AUDIO"R"
3.GND 7.K.RTN 1
4.AUDIO"L" 8.K.RTN 2
A
B
C
D
E
F
G
H
I
J
K
L
M
N
1
2
3

LOCATION GUIDE

| | | | |
|---|---|---|---|
| C601 | E2 | R613 | E2 |
| C602 | D2 | R614 | E1 |
| C603 | J2 | R615 | D2 |
| DIG601 | J2 | R616 | F2 |
| L601 | F2 | R617 | M2 |
| LED601 | H2 | R621 | A2 |
| LED602 | H2 | R622 | A2 |
| P6602 | M2 | R630 | H2 |
| P6M01 | F1 | R631 | H2 |
| P6M03 | D1 | RC601 | M2 |
| R601 | I2 | SW601 | L3 |
| R602 | I2 | SW602 | E2 |
| R603 | I2 | SW603 | E2 |
| R604 | J2 | SW604 | C2 |
| R605 | F2 | SW605 | D2 |
| R606 | I1 | SW606 | D2 |
| R607 | I1 | SW607 | F2 |
| R611 | F2 | SW612 | G2 |
| R612 | E2 | SW613 | A3 |

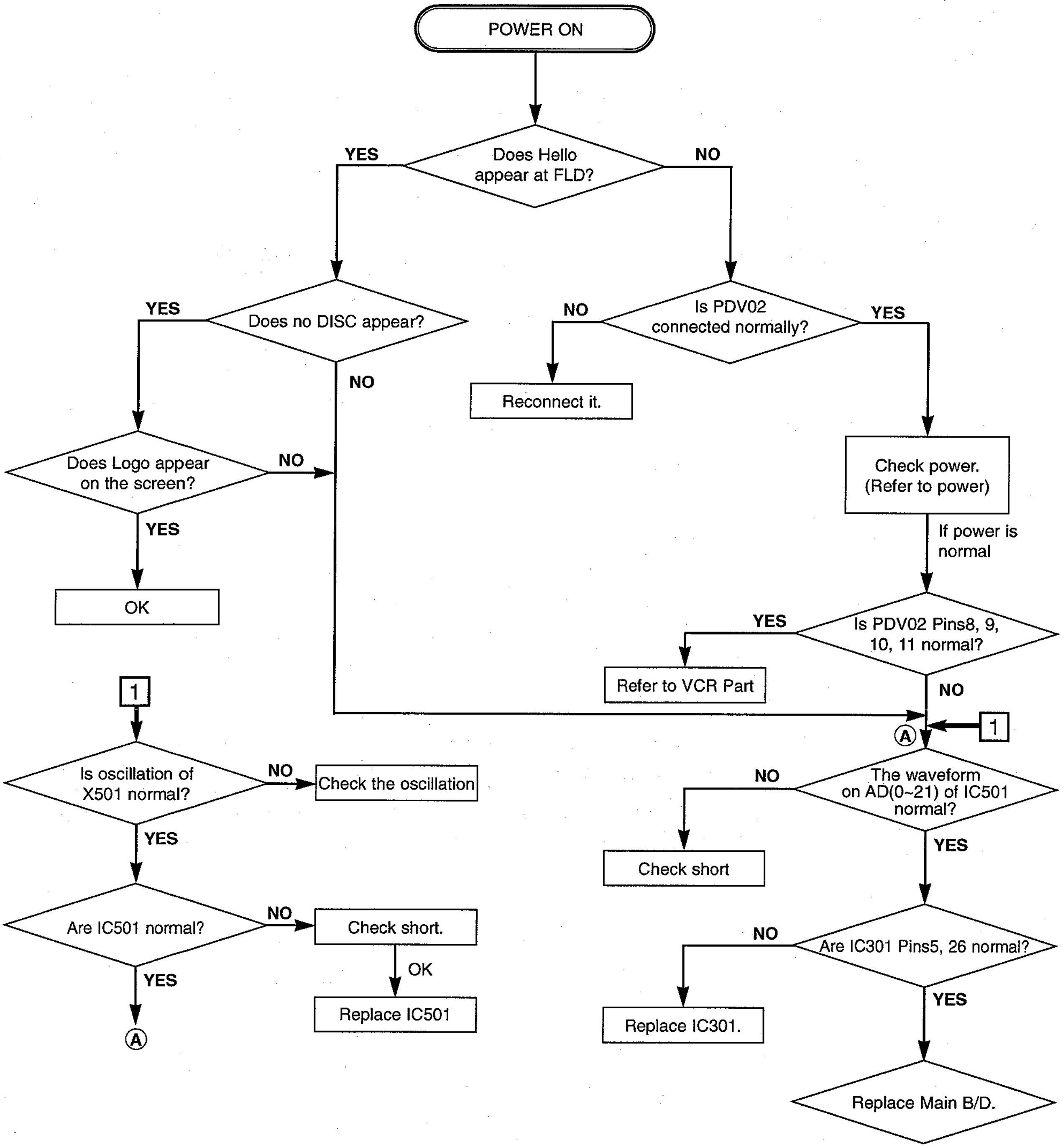
# MEMO

# MEMO

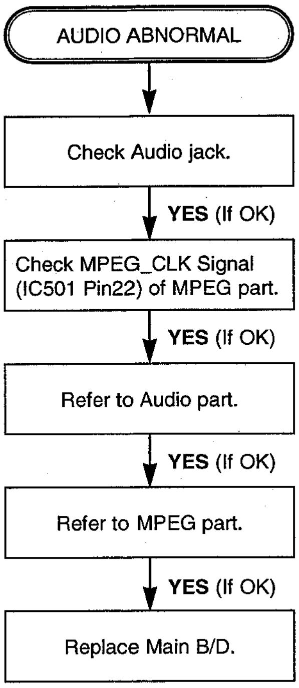
# DVD PART
# ELECTRICAL TROUBLESHOOTING GUIDE

## 1. µ-COM Circuit

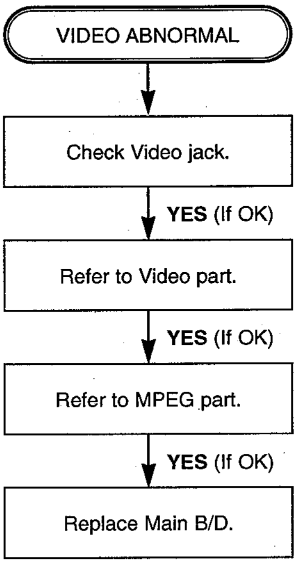
### A. No Power


POWER ON
Does Hello appear at FLD?
YES
NO
Does no DISC appear?
YES
NO
Is PDV02 connected normally?
NO
YES
Reconnect it.
Does Logo appear on the screen?
NO
YES
OK
Check power. (Refer to power)
If power is normal
Is PDV02 Pins8, 9, 10, 11 normal?
YES
NO
Refer to VCR Part
1
Ⓐ
1
Is oscillation of X501 normal?
NO
Check the oscillation
YES
The waveform on AD(0~21) of IC501 normal?
NO
YES
Check short
Are IC501 normal?
NO
Check short.
OK
Replace IC501
YES
Ⓐ
Are IC301 Pins5, 26 normal?
NO
YES
Replace IC301.
Replace Main B/D.

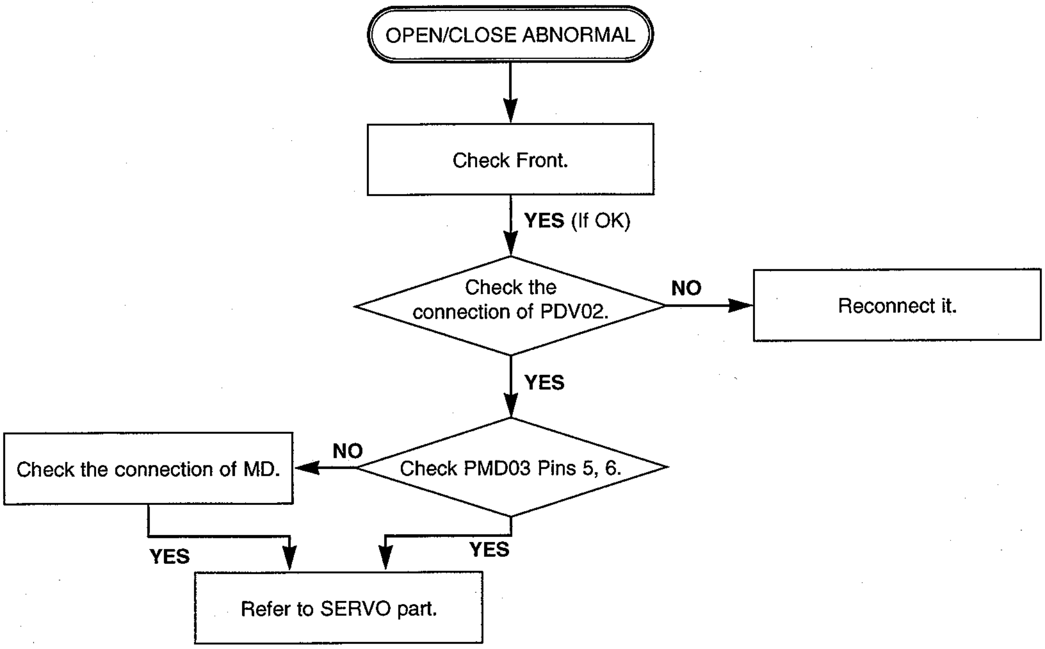
## B. Audio abnormal


AUDIO ABNORMAL
Check Audio jack.
YES (If OK)
Check MPEG_CLK Signal (IC501 Pin22) of MPEG part.
YES (If OK)
Refer to Audio part.
YES (If OK)
Refer to MPEG part.
YES (If OK)
Replace Main B/D.

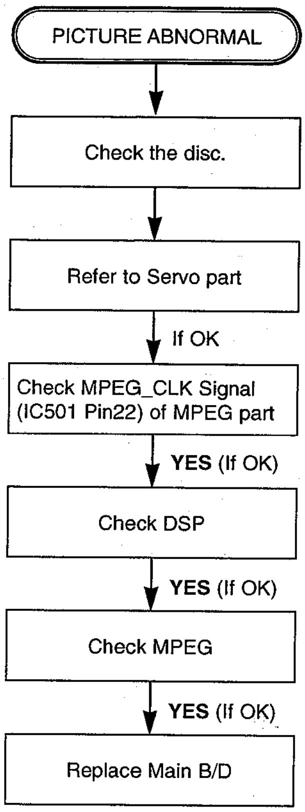
## C. Video abnormal


VIDEO ABNORMAL
Check Video jack.
YES (If OK)
Refer to Video part.
YES (If OK)
Refer to MPEG part.
YES (If OK)
Replace Main B/D.

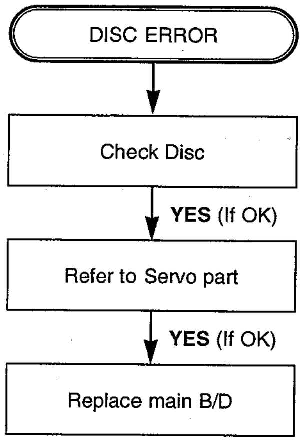
## D. Open/Close abnormal


OPEN/CLOSE ABNORMAL
Check Front.
YES (If OK)
Check the connection of PDV02.
NO
Reconnect it.
YES
Check PMD03 Pins 5, 6.
NO
Check the connection of MD.
YES
YES
Refer to SERVO part.

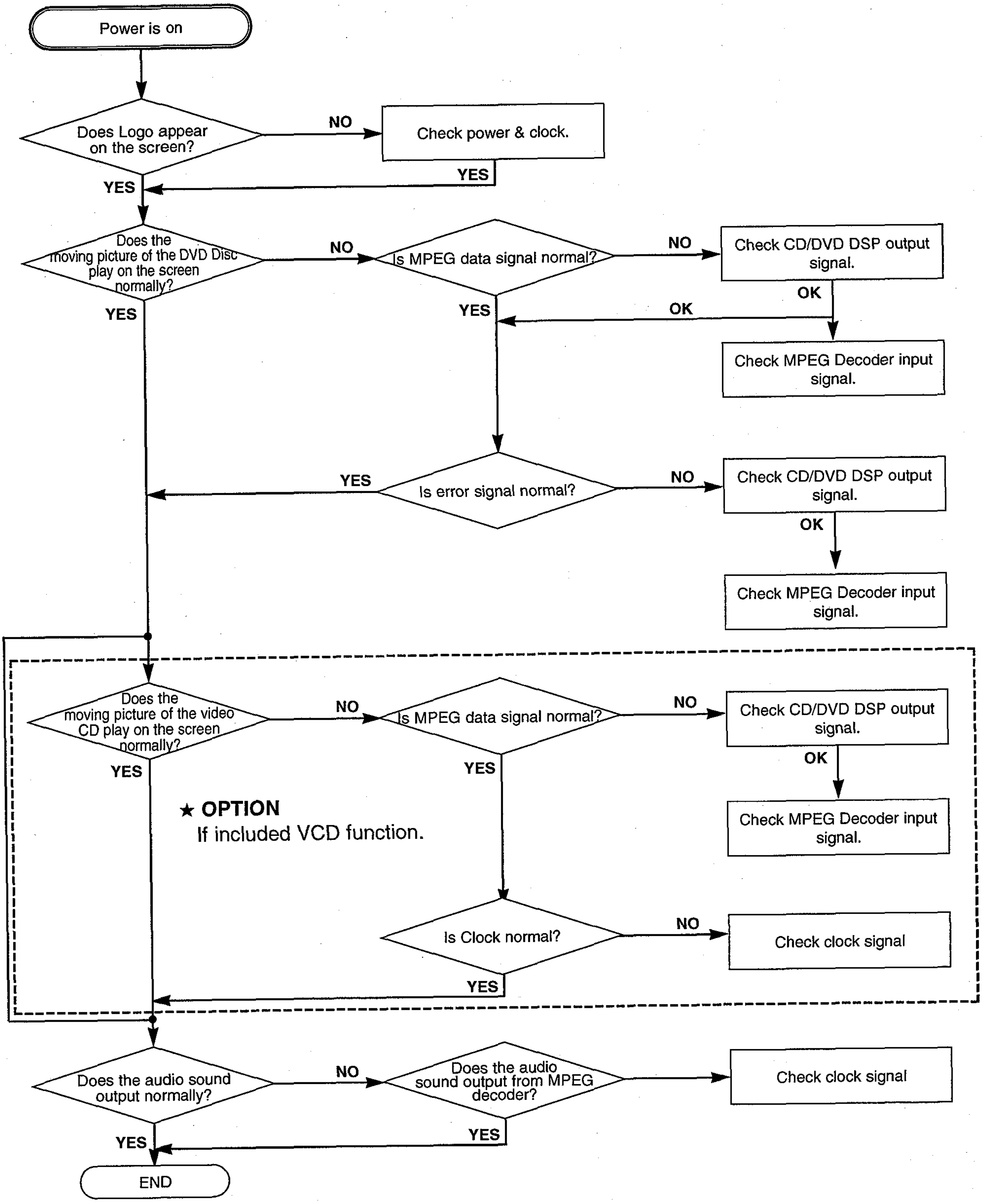
## E. Picture abnormal


PICTURE ABNORMAL
Check the disc.
Refer to Servo part
If OK
Check MPEG_CLK Signal (IC501 Pin22) of MPEG part
YES (If OK)
Check DSP
YES (If OK)
Check MPEG
YES (If OK)
Replace Main B/D

## F. Disc Error


DISC ERROR
Check Disc
YES (If OK)
Refer to Servo part
YES (If OK)
Replace main B/D

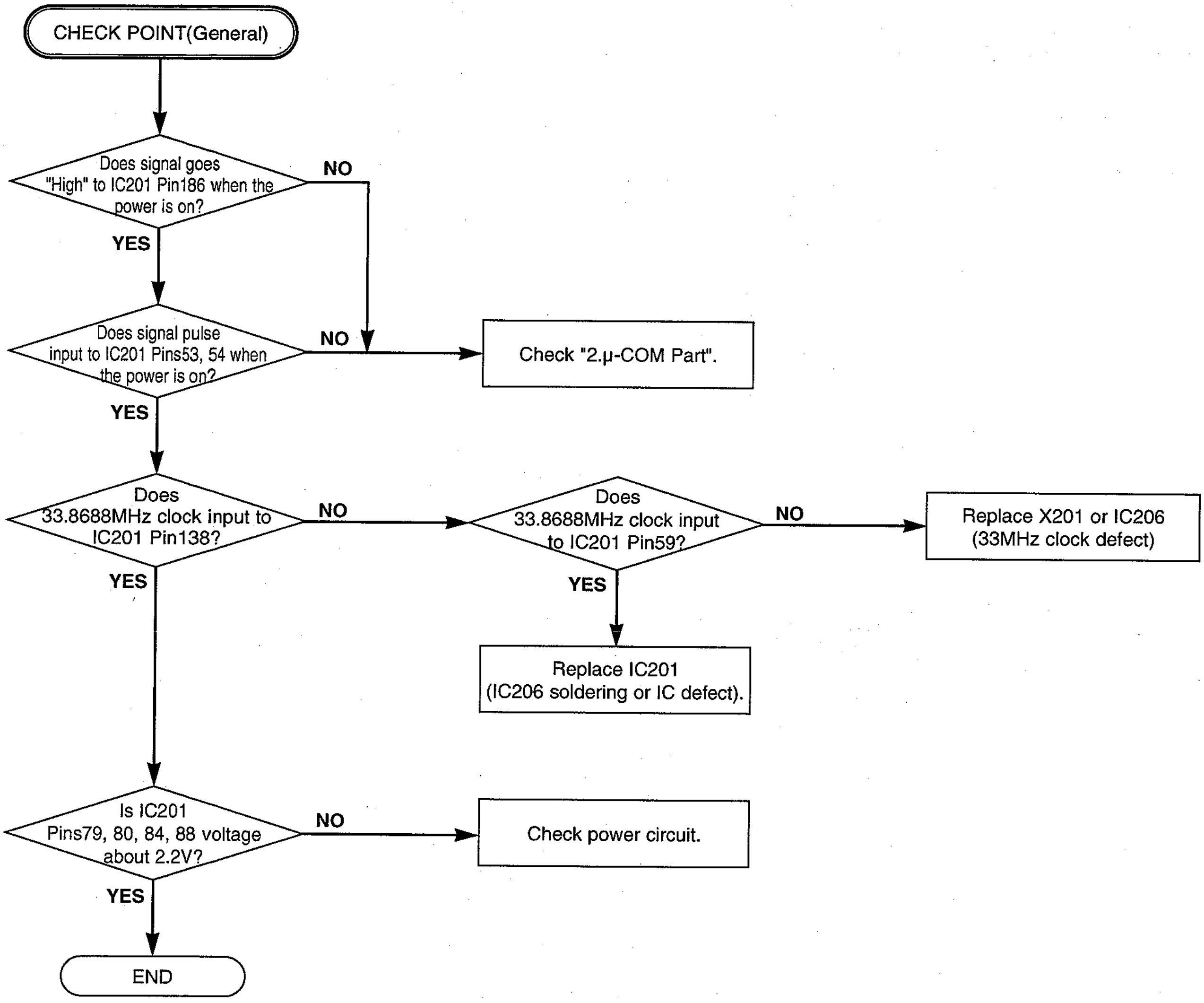
## 2. MPEG Circuit



Power is on
Does Logo appear on the screen?
NO
Check power & clock.
YES
YES
Does the moving picture of the DVD Disc play on the screen normally?
NO
Is MPEG data signal normal?
NO
Check CD/DVD DSP output signal.
OK
YES
OK
Check MPEG Decoder input signal.
YES
YES
Is error signal normal?
NO
Check CD/DVD DSP output signal.
OK
Check MPEG Decoder input signal.
Does the moving picture of the video CD play on the screen normally?
NO
Is MPEG data signal normal?
NO
Check CD/DVD DSP output signal.
OK
YES
YES
★ OPTION
If included VCD function.
Check MPEG Decoder input signal.
Is Clock normal?
NO
Check clock signal
YES
Does the audio sound output normally?
NO
Does the audio sound output from MPEG decoder?
Check clock signal
YES
YES
END

## 3. RF/Servo Circuit

### A.


CHECK POINT(General)
Does signal goes "High" to IC201 Pin186 when the power is on?
NO
YES
Does signal pulse input to IC201 Pins53, 54 when the power is on?
NO
Check "2.μ-COM Part".
YES
Does 33.8688MHz clock input to IC201 Pin138?
NO
Does 33.8688MHz clock input to IC201 Pin59?
NO
Replace X201 or IC206 (33MHz clock defect)
YES
Replace IC201 (IC206 soldering or IC defect).
YES
Is IC201 Pins79, 80, 84, 88 voltage about 2.2V?
NO
Check power circuit.
YES
END

**B.**

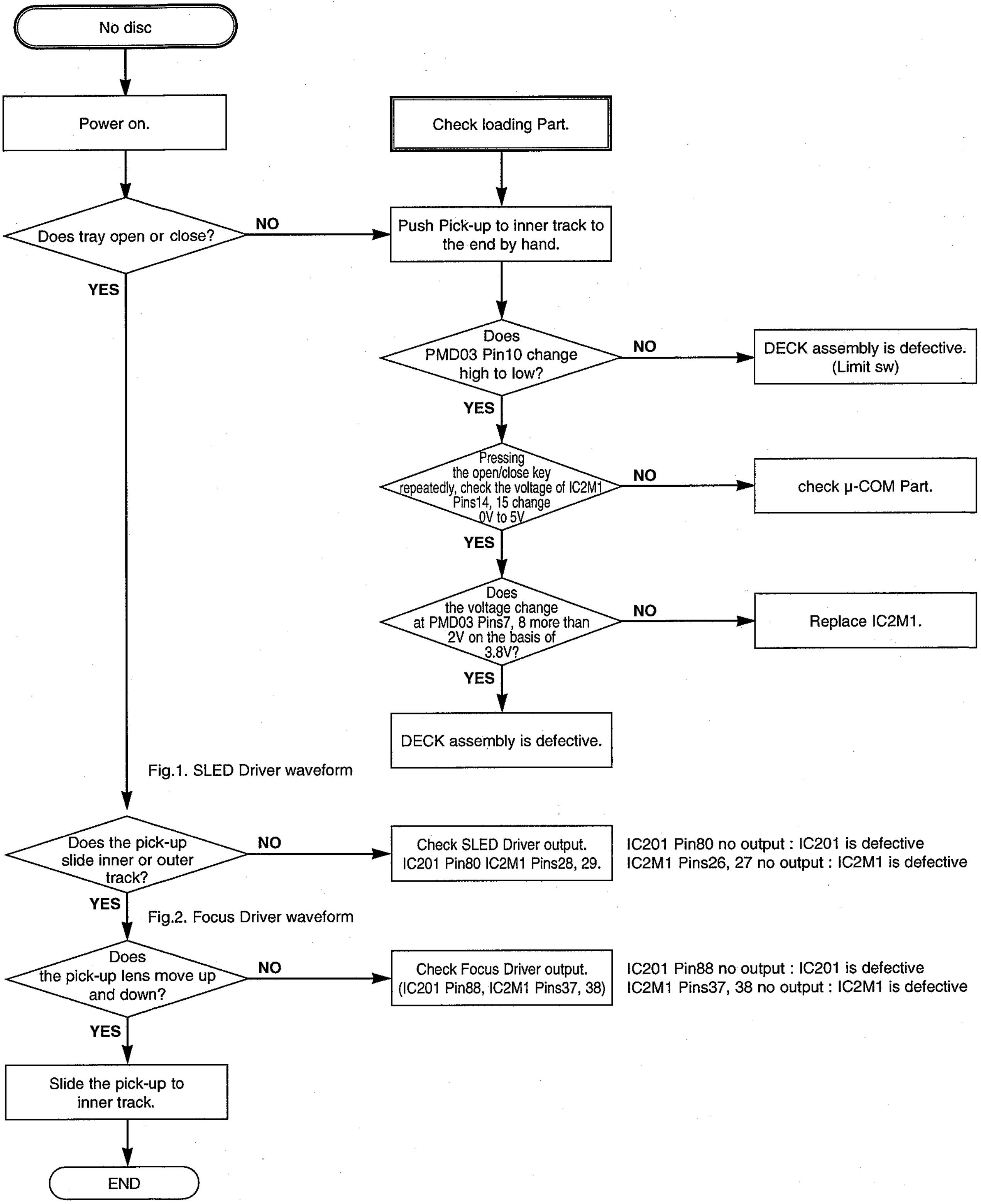

No disc
Power on.
Does tray open or close?
NO
YES
Check loading Part.
Push Pick-up to inner track to the end by hand.
Does PMD03 Pin10 change high to low?
NO
DECK assembly is defective. (Limit sw)
YES
Pressing the open/close key repeatedly, check the voltage of IC2M1 Pins14, 15 change 0V to 5V
NO
check μ-COM Part.
YES
Does the voltage change at PMD03 Pins7, 8 more than 2V on the basis of 3.8V?
NO
Replace IC2M1.
YES
DECK assembly is defective.
Does the pick-up slide inner or outer track?
NO
Check SLED Driver output. IC201 Pin80 IC2M1 Pins28, 29.
YES
Does the pick-up lens move up and down?
NO
Check Focus Driver output. (IC201 Pin88, IC2M1 Pins37, 38)
YES
Slide the pick-up to inner track.
END

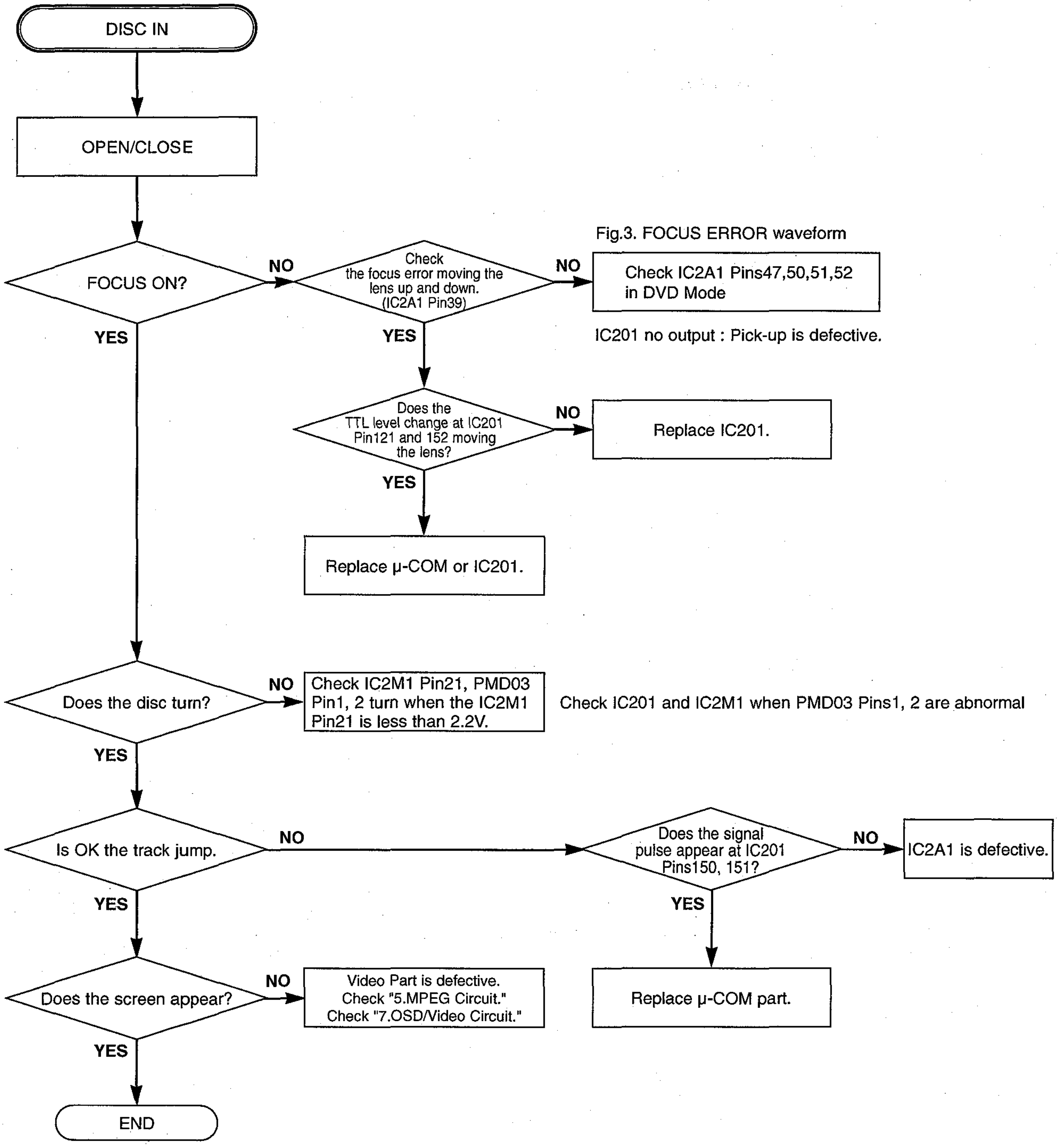
Fig.1. SLED Driver waveform

IC201 Pin80 no output : IC201 is defective
IC2M1 Pins26, 27 no output : IC2M1 is defective

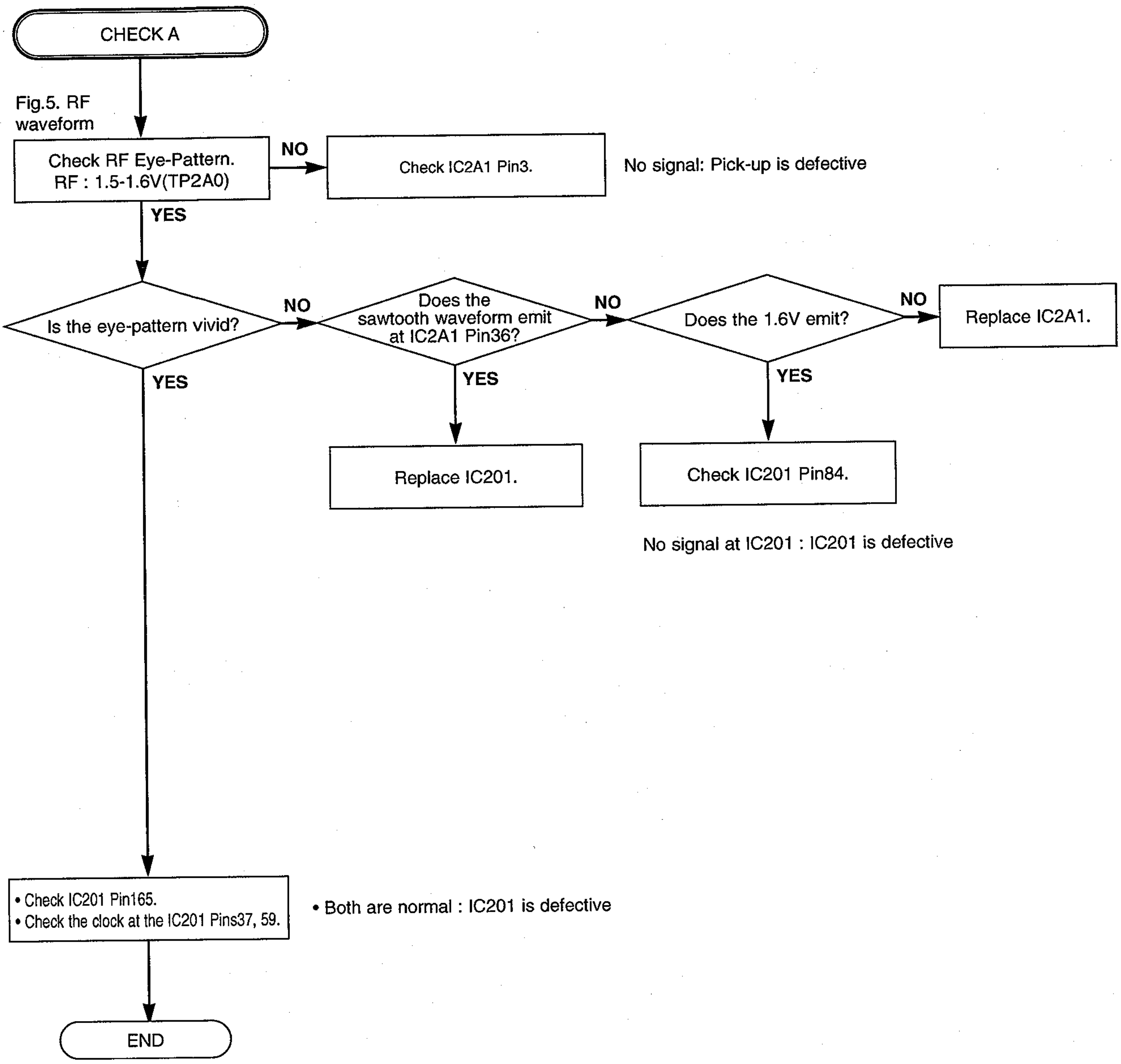
Fig.2. Focus Driver waveform

IC201 Pin88 no output : IC201 is defective
IC2M1 Pins37, 38 no output : IC2M1 is defective

## C.

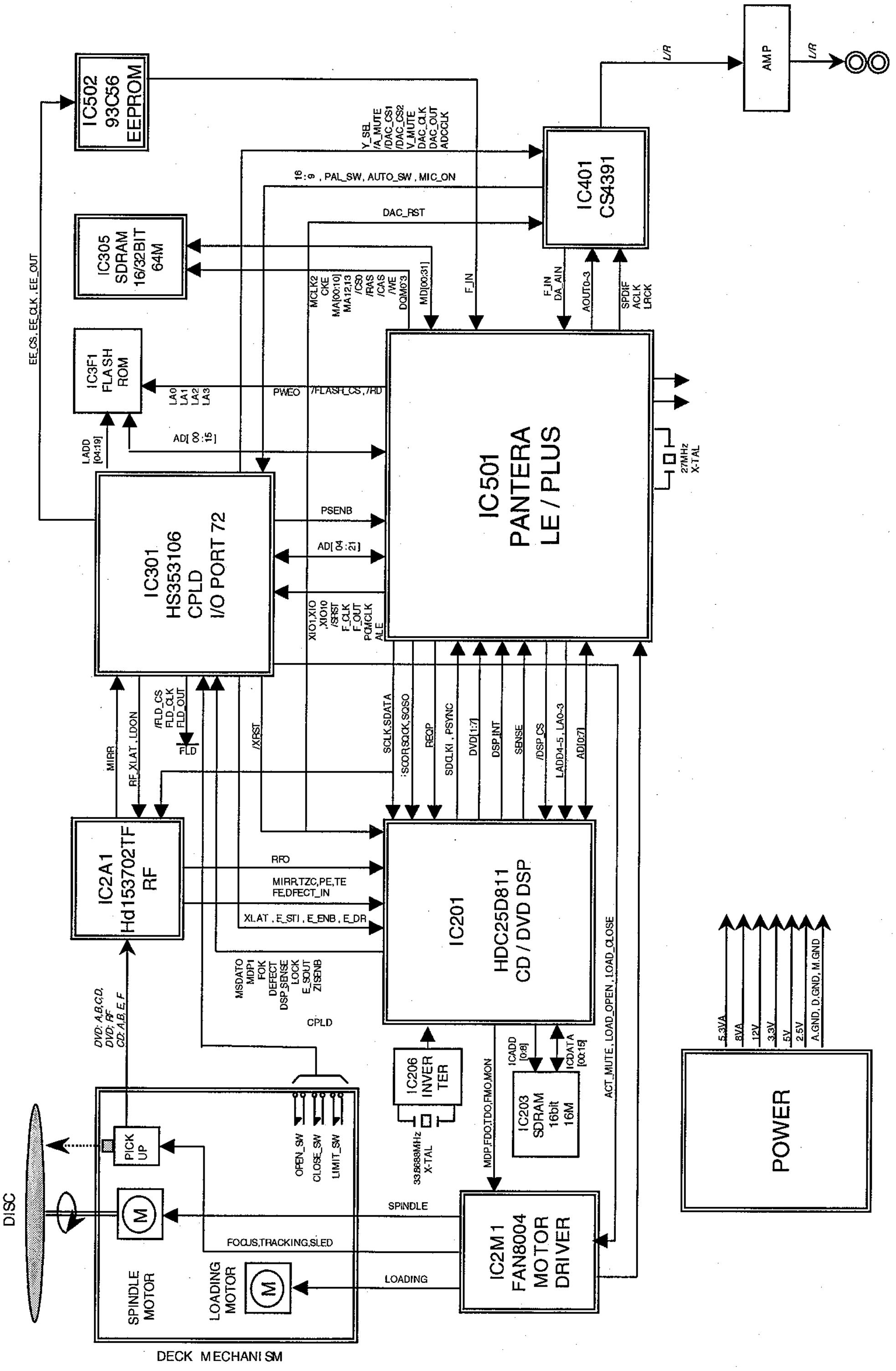

DISC IN
OPEN/CLOSE
FOCUS ON?
NO
Check the focus error moving the lens up and down. (IC2A1 Pin39)
NO
Fig.3. FOCUS ERROR waveform
Check IC2A1 Pins47,50,51,52 in DVD Mode
IC201 no output : Pick-up is defective.
YES
YES
Does the TTL level change at IC201 Pin121 and 152 moving the lens?
NO
Replace IC201.
YES
Replace µ-COM or IC201.
Does the disc turn?
NO
Check IC2M1 Pin21, PMD03 Pin1, 2 turn when the IC2M1 Pin21 is less than 2.2V.
Check IC201 and IC2M1 when PMD03 Pins1, 2 are abnormal
YES
Is OK the track jump.
NO
Does the signal pulse appear at IC201 Pins150, 151?
NO
IC2A1 is defective.
YES
YES
Does the screen appear?
NO
Video Part is defective. Check "5.MPEG Circuit." Check "7.OSD/Video Circuit."
Replace µ-COM part.
YES
END

**D.**


CHECK A
Fig.5. RF waveform
Check RF Eye-Pattern. RF : 1.5-1.6V(TP2A0)
NO
Check IC2A1 Pin3.
No signal: Pick-up is defective
YES
Is the eye-pattern vivid?
NO
Does the sawtooth waveform emit at IC2A1 Pin36?
NO
Does the 1.6V emit?
NO
Replace IC2A1.
YES
YES
YES
Replace IC201.
Check IC201 Pin84.
No signal at IC201 : IC201 is defective
• Check IC201 Pin165.
• Check the clock at the IC201 Pins37, 59.
• Both are normal : IC201 is defective
END

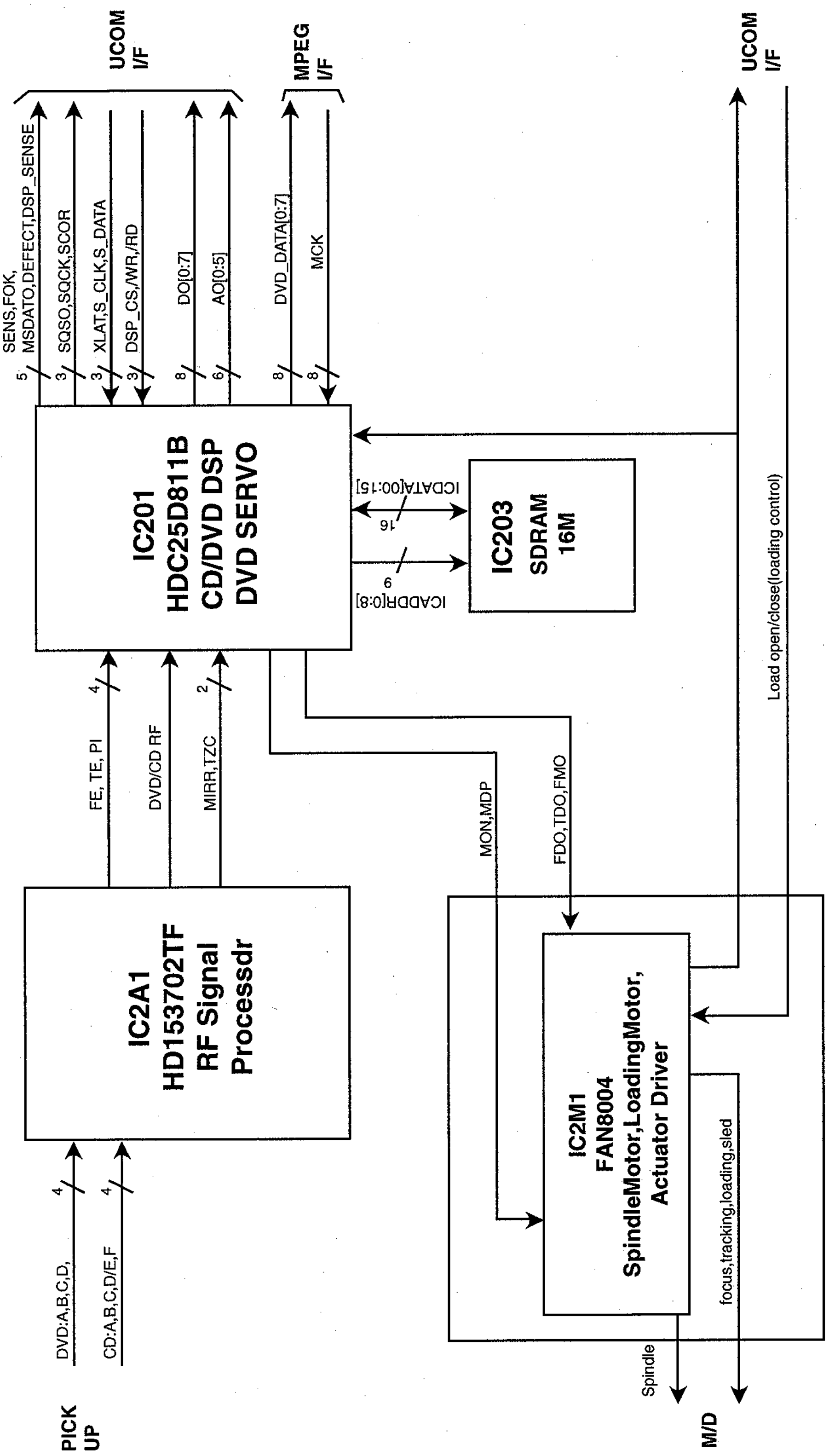
# BLOCK DIAGRAMS

## 1. DVD OVERALL BLOCK DIAGRAM

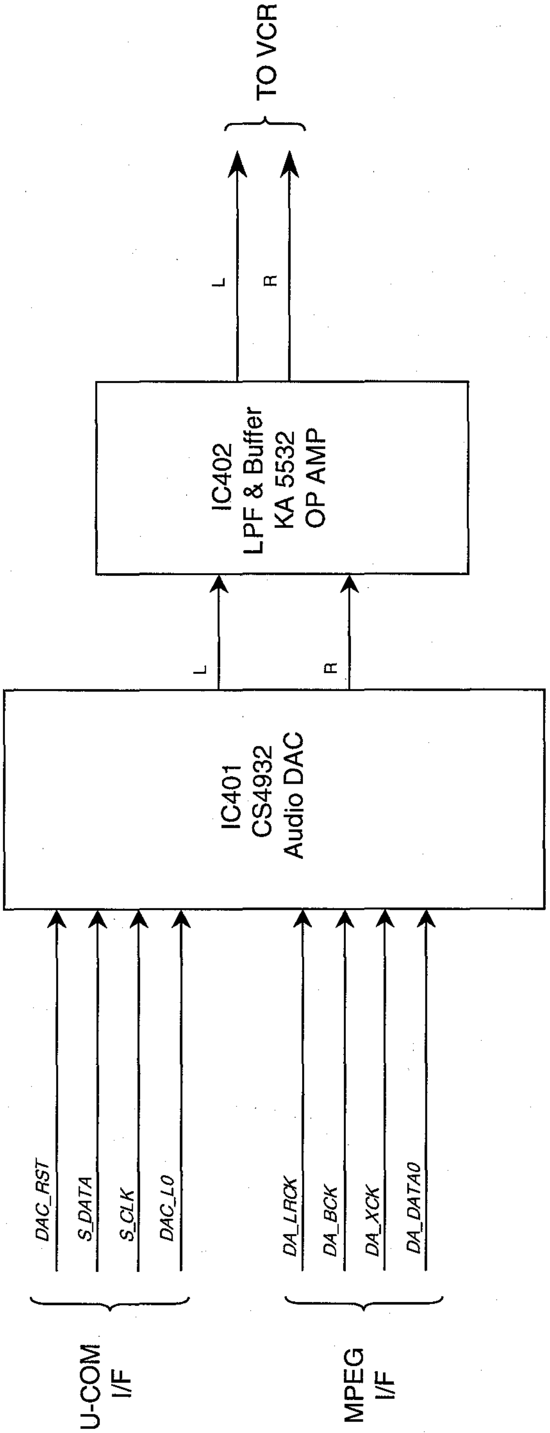

IC502
93C56
EEPROM
IC305
SDRAM
16/32BIT
64M
IC3F1
FLASH
ROM
IC301
HS353106
CPLD
I/O PORT 72
IC501
PANTERA
LE / PLUS
IC401
CS4391
AMP
L/R
L/R
Y_SEL
/A_MUTE
/DAC_CS1
/DAC_CS2
V_MUTE
DAC_CLK
DAC_OUT
ADCCLK
16:9, PAL_SW, AUTO_SW, MIC_ON
DAC_RST
MCLK2
CKE
MA[00:10]
MA12,13
/CS0
/RAS
/CAS
/WE
DQM0'3
MD[00:31]
F_IN
F_IN
DA_AIN
AOUT0-3
SPDIF
ACLK
LRCK
EE_CS, EE_CLK, EE_OUT
LA0
LA1
LA2
LA3
PWEO
/FLASH_CS, /RD
LADD [04:19]
AD[8:15]
27MHz
X-TAL
PSENB
AD[0:7]
XIO1,XIO
,XIO10
/SRST
F_CLK
F_OUT
PCMCLK
ALE
MIRR
RF_XLAT, LDON
/FLD_CS
FLD_CLK
FLD_OUT
FLD
/XRST
SCLK,SDATA
SCOR,SQCK,SQSO
REQP
SDCLKI, PSYNC
DVD[1:7]
DSP_INT
SENSE
/DSP_CS
LADD4-5, LA0-3
AD[0:7]
IC2A1
Hd153702TF
RF
RFO
MIRR,TZC,PE,TE
FE,DFECT_IN
XLAT, E_STI, E_ENB, E_DR
IC201
HDC25D811
CD / DVD DSP
MSDATO
MDP1
FOK
DEFECT
DSP_SENSE
LOCK
E_SOUT
ZISENB
CPLD
DVD: A,B,C,D,
DVD: RF
CD: A,B,E,F
IC206
INVER
TER
33.8688MHz
X-TAL
ICADD
[0:8]
ICDATA
[00:15]
IC203
SDRAM
16bit
16M
MDP,FDO,TDO,FMO,MON
ACT_MUTE, LOAD_OPEN, LOAD_CLOSE
PICK
UP
OPEN_SW
CLOSE_SW
LIMIT_SW
DISC
M
SPINDLE
FOCUS,TRACKING,SLED
LOADING
SPINDLE
MOTOR
LOADING
MOTOR
M
IC2M1
FAN8004
MOTOR
DRIVER
DECK MECHANISM
5.3VA
8VA
12V
3.3V
5V
2.5V
A.GND, D.GND, M.GND
POWER

V640GP

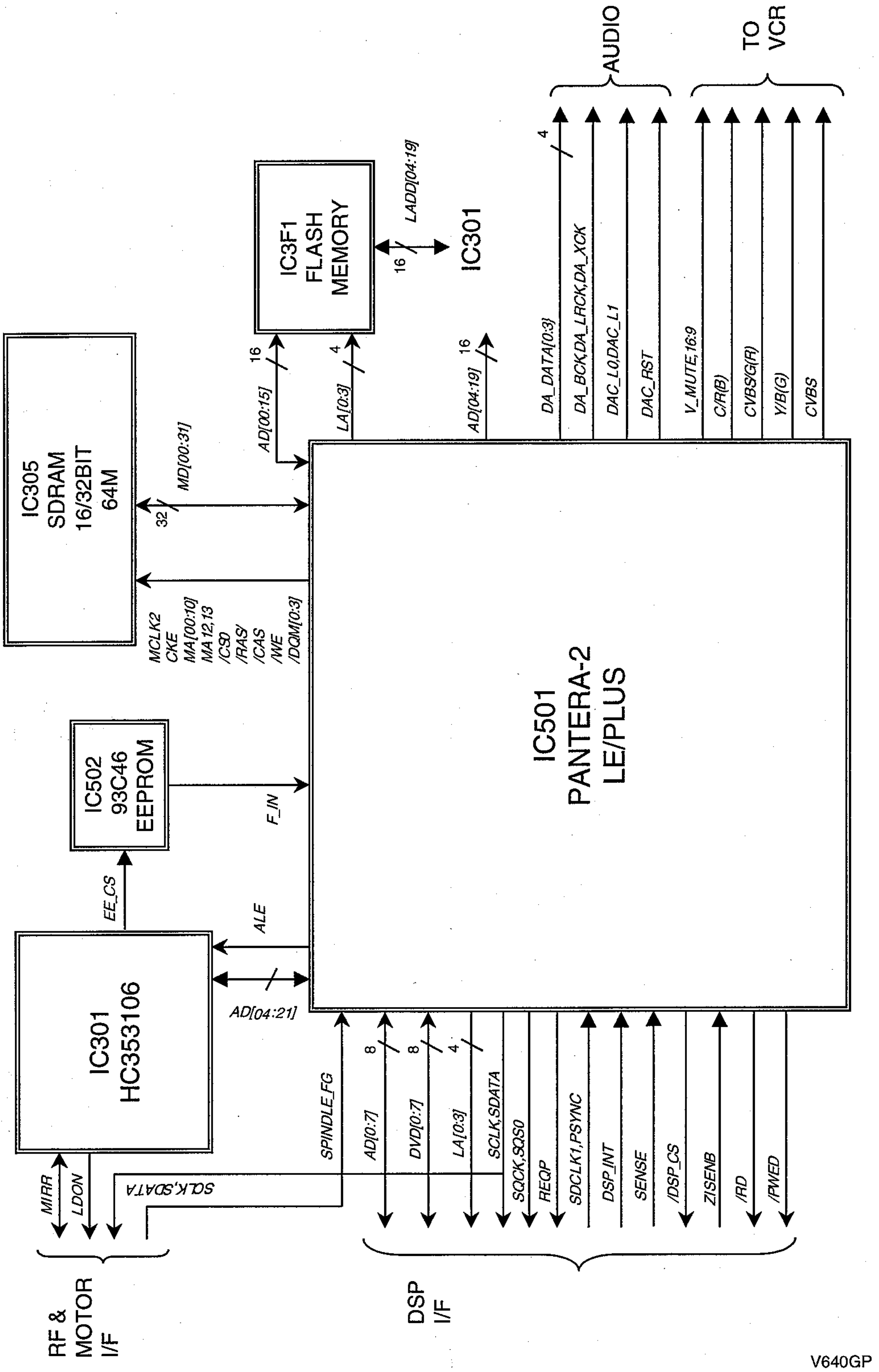
# 2. RF/CD DSP/DVD DSP/DVD SERVO BLOCK DIAGRAM


UCOM
I/F
MPEG
I/F
UCOM
I/F
SENS,FOK,
MSDATO,DEFECT,DSP_SENSE
5
SQSO,SQCK,SCOR
3
XLATS,S_CLK,S_DATA
3
DSP_CS,/WR,/RD
3
DO[0:7]
8
AO[0:5]
6
DVD_DATA[0:7]
8
MCK
8
IC201
HDC25D811B
CD/DVD DSP
DVD SERVO
ICDATA[00:15]
16
ICADDR[0:8]
9
IC203
SDRAM
16M
Load open/close(loading control)
FE, TE, PI
4
DVD/CD RF
MIRR,TZC
2
MON,MDP
FDO,TDO,FMO
IC2A1
HD153702TF
RF Signal
Processdr
IC2M1
FAN8004
SpindleMotor,LoadingMotor,
Actuator Driver
focus,tracking,loading,sled
Spindle
DVD:A,B,C,D,
4
CD:A,B,C,D/E,F
4
PICK
UP
M/D

## 3. AUDIO BLOCK DIAGRAM


TO VCR
L
R
IC402
LPF & Buffer
KA 5532
OP AMP
L
R
IC401
CS4932
Audio DAC
DAC_RST
S_DATA
S_CLK
DAC_L0
DA_LRCK
DA_BCK
DA_XCK
DA_DATA0
U-COM
I/F
MPEG
I/F

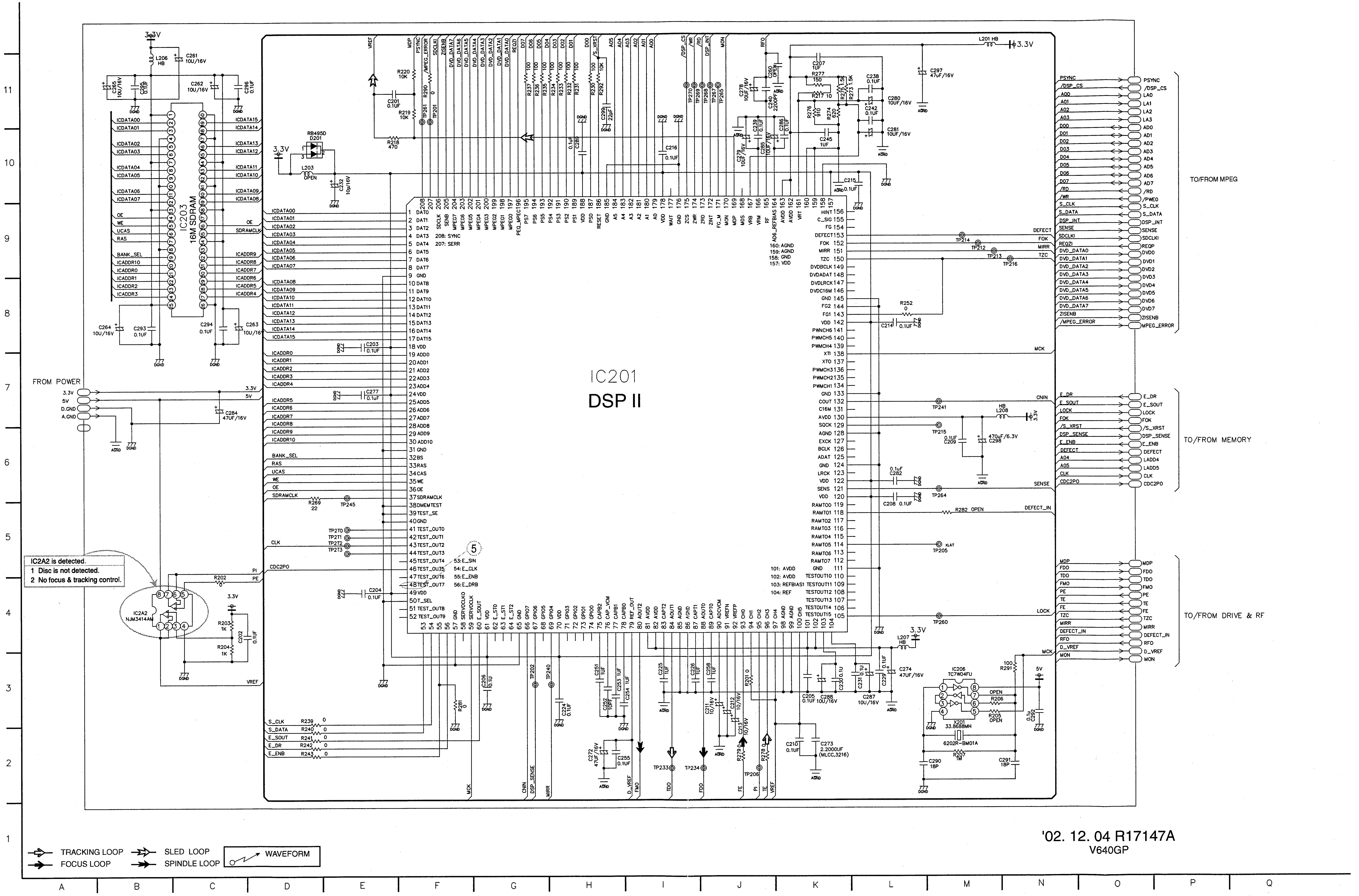
# 4. MPEG BLOCK DIAGRAM


IC305
SDRAM
16/32BIT
64M
IC3F1
FLASH
MEMORY
IC501
PANTERA-2
LE/PLUS
IC502
93C46
EEPROM
IC301
HC353106
IC301
AUDIO
TO
VCR
RF &
MOTOR
I/F
DSP
I/F
MD[00:31]
32
MCLK2
CKE
MA[00:10]
MA12,13
/CS0
/RAS/
/CAS
/WE
/DQM[0:3]
AD[00:15]
16
LA[0:3]
4
LADD[04:19]
16
AD[04:19]
16
DA_DATA[0:3]
4
DA_BCK,DA_LRCK,DA_XCK
DAC_L0,DAC_L1
DAC_RST
V_MUTE,16:9
C/R(B)
CVBS/G(R)
Y/B(G)
CVBS
F_IN
EE_CS
ALE
AD[04:21]
SPINDLE_FG
AD[0:7]
8
DVD[0:7]
8
LA[0:3]
4
SCLK,SDATA
SQCK,SQS0
REQP
SDCLK1,PSYNC
DSP_INT
SENSE
/DSP_CS
ZISENB
/RD
/PWED
MIRR
LDON
SCLK,SDATA

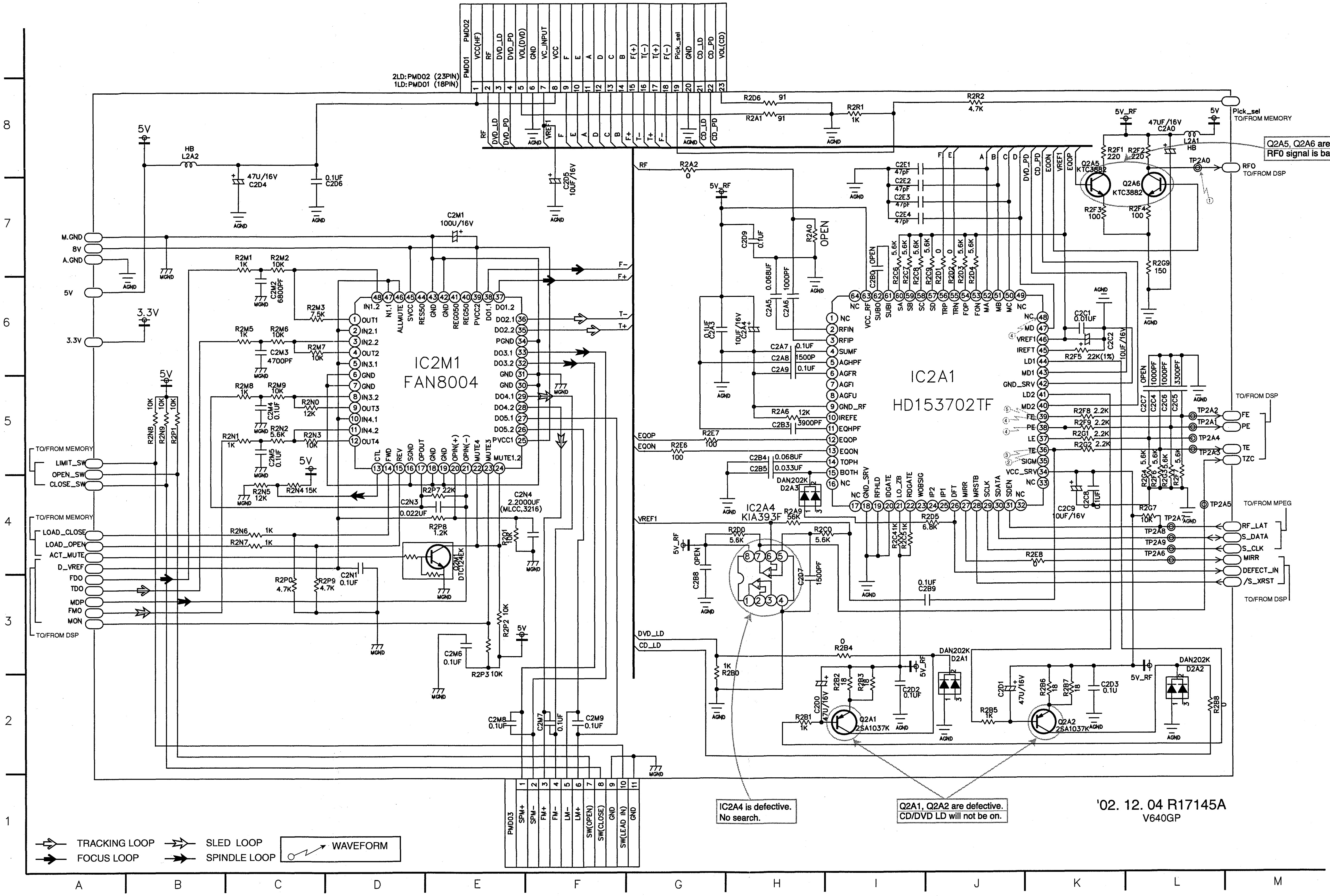
V640GP

# CIRCUIT DIAGRAMS

## 1. DVD DSP CIRCUIT DIAGRAM


IC201
DSP II
IC203
16M SDRAM
IC2A2
NJM3414AM
IC206
TC7W04FU
X201
33.8688MH
6202R-BM01A
RB495D
D201
FROM POWER
3.3V
5V
D.GND
A.GND
TO/FROM MPEG
TO/FROM MEMORY
TO/FROM DRIVE & RF
PSYNC
/DSP_CS
LA0
LA1
LA2
LA3
AD0
AD1
AD2
AD3
AD4
AD5
AD6
AD7
/RD
/PWE0
S_CLK
S_DATA
DSP_INT
SENSE
SDCLKI
REQP
DVD0
DVD1
DVD2
DVD3
DVD4
DVD5
DVD6
DVD7
ZISENB
MPEG_ERROR
E_DR
E_SOUT
LOCK
FOK
/S_XRST
DSP_SENSE
E_ENB
DEFECT
LADD4
LADD5
CLK
CDC2PO
MDP
FDO
TDO
FMO
PE
TE
FE
TZC
MIRR
DEFECT_IN
RFO
D_VREF
MON
IC2A2 is detected.
1 Disc is not detected.
2 No focus & tracking control.
5
TRACKING LOOP
SLED LOOP
WAVEFORM
FOCUS LOOP
SPINDLE LOOP
'02. 12. 04 R17147A
V640GP
1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q

## 2. DRIVE & RF CIRCUIT DIAGRAM


IC2M1
FAN8004
IC2A1
HD153702TF
IC2A4
KIA393F
Q2A5
KTC3882
Q2A6
KTC3882
Q2A1
2SA1037K
Q2A2
2SA1037K
Q2N1
DTC124EK
D2A1
D2A2
D2A3
DAN202K
2LD:PMD02 (23PIN)
1LD:PMD01 (18PIN)
PMD01
PMD02
PMD03
M.GND
8V
A.GND
5V
3.3V
TO/FROM MEMORY
LIMIT_SW
OPEN_SW
CLOSE_SW
LOAD_CLOSE
LOAD_OPEN
ACT_MUTE
D_VREF
FDO
TDO
MDP
FMO
MON
TO/FROM DSP
Pick_sel
RFO
FE
PE
TE
TZC
TO/FROM MPEG
RF_LAT
S_DATA
S_CLK
MIRR
DEFECT_IN
/S_XRST
TP2A0
TP2A1
TP2A2
TP2A3
TP2A4
TP2A5
TP2A6
TP2A7
TP2A8
TP2A9
SPM+
SPM-
FM+
FM-
LM-
LM+
SW(OPEN)
SW(CLOSE)
GND
SW(LEAD IN)
AGND
MGND
5V_RF
TRACKING LOOP
FOCUS LOOP
SLED LOOP
SPINDLE LOOP
WAVEFORM
A
B
C
D
E
F
G
H
I
J
K
L
M
1
2
3
4
5
6
7
8

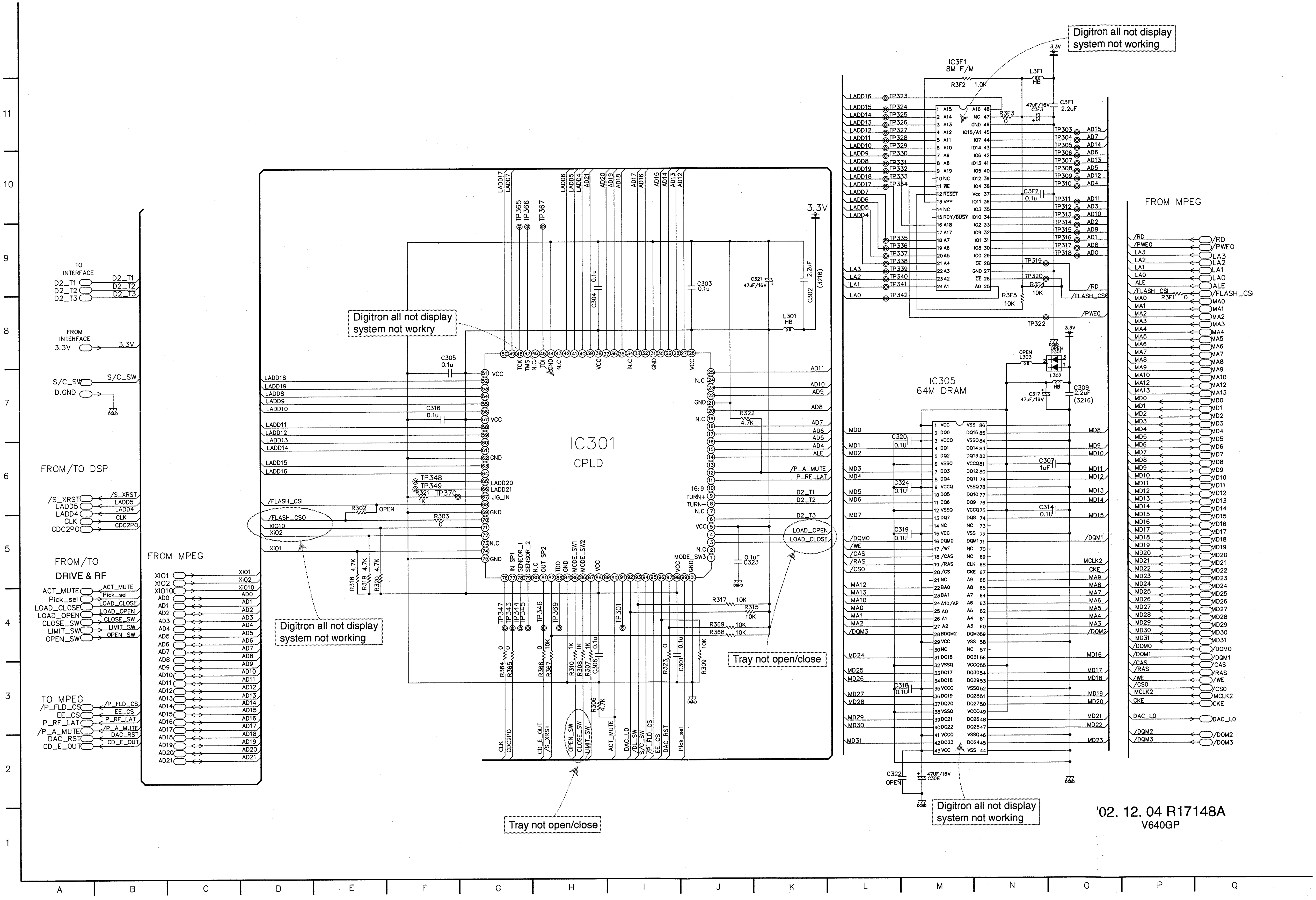
Q2A5, Q2A6 are defective
RF0 signal is bad.

IC2A4 is defective.
No search.

Q2A1, Q2A2 are defective.
CD/DVD LD will not be on.

'02. 12. 04 R17145A
V640GP

# 3. MEMORY CIRCUIT DIAGRAM


IC301
CPLD
IC305
64M DRAM
IC3F1
8M F/M
TO INTERFACE
FROM INTERFACE
FROM/TO DSP
FROM/TO DRIVE & RF
FROM MPEG
TO MPEG
3.3V
D2_T1
D2_T2
D2_T3
S/C_SW
D.GND
/S_XRST
LADD5
LADD4
CLK
CDC2PO
ACT_MUTE
Pick_sel
LOAD_CLOSE
LOAD_OPEN
CLOSE_SW
LIMIT_SW
OPEN_SW
/P_FLD_CS
EE_CS
P_RF_LAT
/P_A_MUTE
DAC_RST
CD_E_OUT
/RD
/PWE0
/FLASH_CSI
ALE
/DQM0
/DQM1
/DQM2
/DQM3
/CAS
/RAS
/WE
/CS0
MCLK2
CKE
DAC_LO
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
1
2
3
4
5
6
7
8
9
10
11

Digitron all not display system not working

Digitron all not display system not workry

Digitron all not display system not working

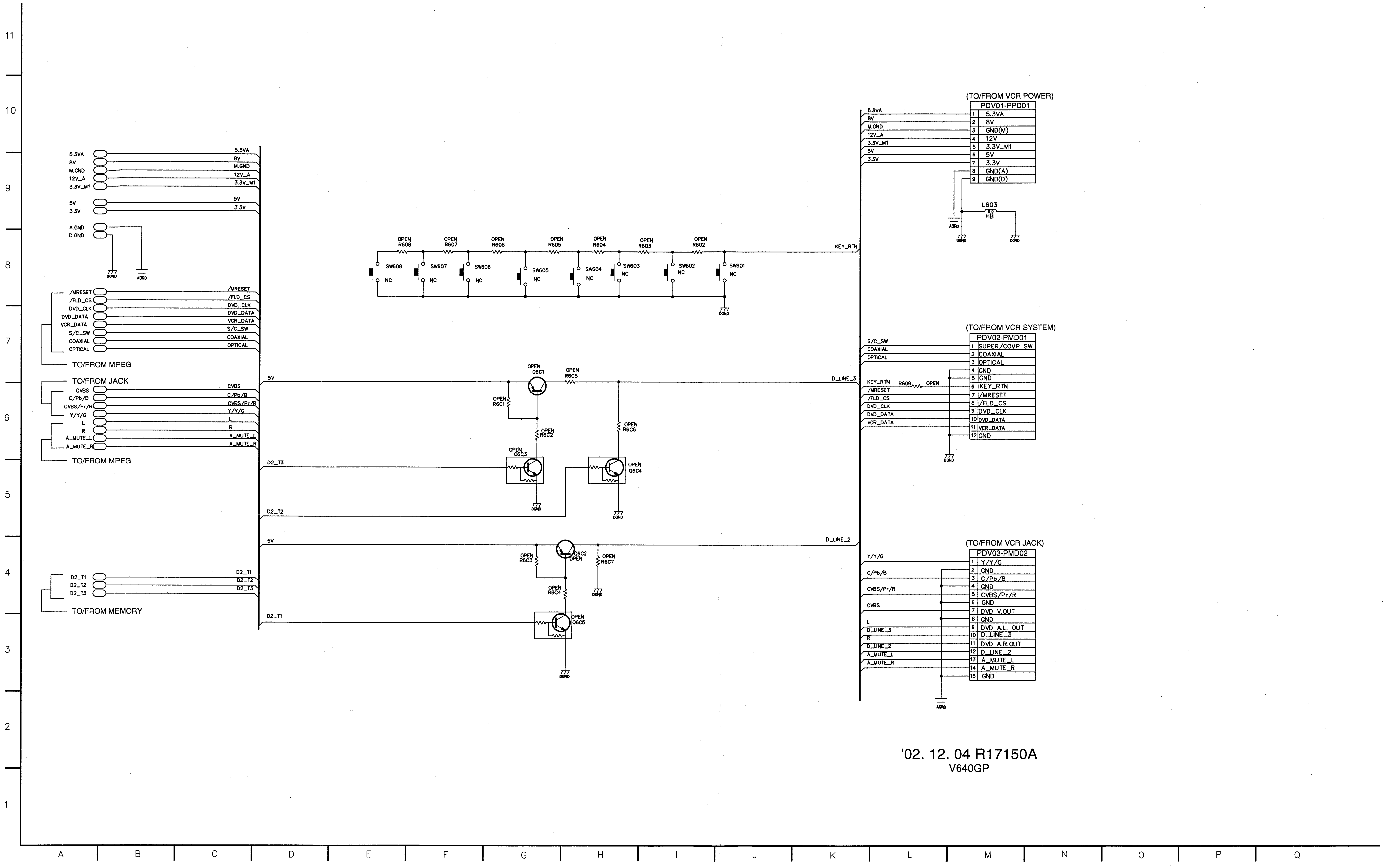
Tray not open/close

Tray not open/close

Digitron all not display system not working

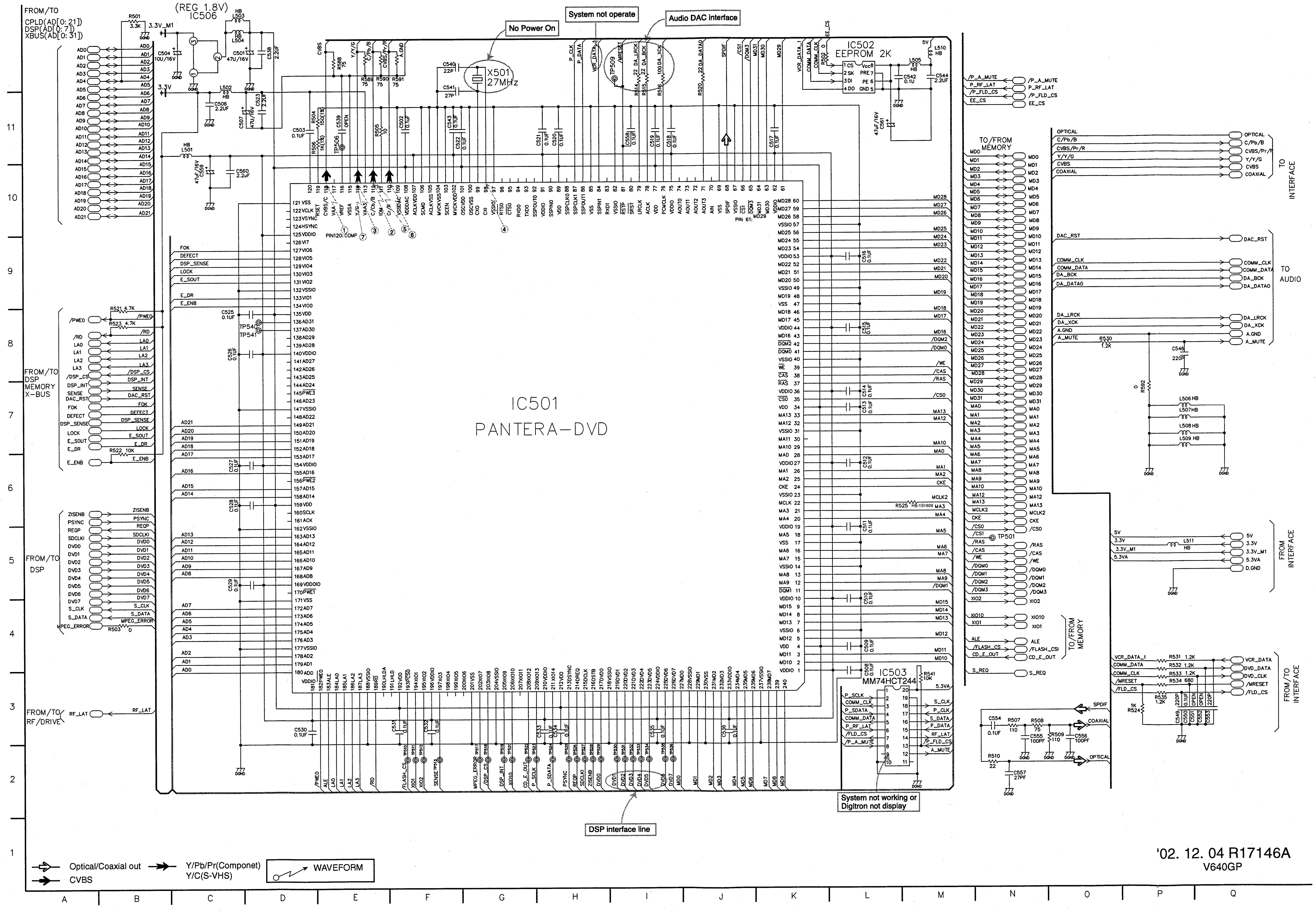
'02. 12. 04 R17148A
V640GP

# 4. INTERFACE CIRCUIT DIAGRAM


5.3VA
8V
M.GND
12V_A
3.3V_M1
5V
3.3V
A.GND
D.GND
DGND
AGND
/MRESET
/FLD_CS
DVD_CLK
DVD_DATA
VCR_DATA
S/C_SW
COAXIAL
OPTICAL
TO/FROM MPEG
TO/FROM JACK
CVBS
C/Pb/B
CVBS/Pr/R
Y/Y/G
L
R
A_MUTE_L
A_MUTE_R
TO/FROM MPEG
D2_T1
D2_T2
D2_T3
TO/FROM MEMORY
OPEN R608
OPEN R607
OPEN R606
OPEN R605
OPEN R604
OPEN R603
OPEN R602
SW608 NC
SW607 NC
SW606 NC
SW605 NC
SW604 NC
SW603 NC
SW602 NC
SW601 NC
KEY_RTN
OPEN Q6C1
OPEN R6C5
OPEN R6C1
OPEN R6C2
OPEN R6C6
OPEN Q6C3
OPEN Q6C4
D_LINE_3
OPEN R6C3
Q6C2 OPEN
OPEN R6C7
OPEN R6C4
OPEN Q6C5
D_LINE_2
(TO/FROM VCR POWER)
PDV01-PPD01
1 5.3VA
2 8V
3 GND(M)
4 12V
5 3.3V_M1
6 5V
7 3.3V
8 GND(A)
9 GND(D)
L603
HB
(TO/FROM VCR SYSTEM)
PDV02-PMD01
1 SUPER/COMP SW
2 COAXIAL
3 OPTICAL
4 GND
5 GND
6 KEY_RTN
7 /MRESET
8 /FLD_CS
9 DVD_CLK
10 DVD_DATA
11 VCR_DATA
12 GND
R609 OPEN
(TO/FROM VCR JACK)
PDV03-PMD02
1 Y/Y/G
2 GND
3 C/Pb/B
4 GND
5 CVBS/Pr/R
6 GND
7 DVD V.OUT
8 GND
9 DVD A.L. OUT
10 D_LINE_3
11 DVD A.R.OUT
12 D_LINE_2
13 A_MUTE_L
14 A_MUTE_R
15 GND
11
10
9
8
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q

'02. 12. 04 R17150A
V640GP

# 5. µ-COM/EXPANDER CIRCUIT DIAGRAM


FROM/TO
CPLD(AD[0:21])
DSP(AD[0:7])
XBUS(AD[0:31])
(REG 1.8V)
IC506
X501
27MHz
IC502
EEPROM 2K
IC501
PANTERA−DVD
IC503
MM74HCT244
FROM/TO
DSP
MEMORY
X-BUS
FROM/TO
DSP
FROM/TO
RF/DRIVE
TO/FROM
MEMORY
TO
INTERFACE
TO
AUDIO
FROM
INTERFACE
TO/FROM
MEMORY
FROM/TO
INTERFACE
OPTICAL
C/Pb/B
CVBS/Pr/R
Y/Y/G
CVBS
COAXIAL
DAC_RST
COMM_CLK
COMM_DATA
DA_BCK
DA_DATA0
DA_LRCK
DA_XCK
A.GND
A_MUTE
5V
3.3V
3.3V_M1
5.3VA
D.GND
VCR_DATA
DVD_DATA
DVD_CLK
/MRESET
/FLD_CS
SPDIF
COAXIAL
OPTICAL
11
10
9
8
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q

No Power On

System not operate

Audio DAC interface

System not working or Digitron not display

DSP interface line

Optical/Coaxial out

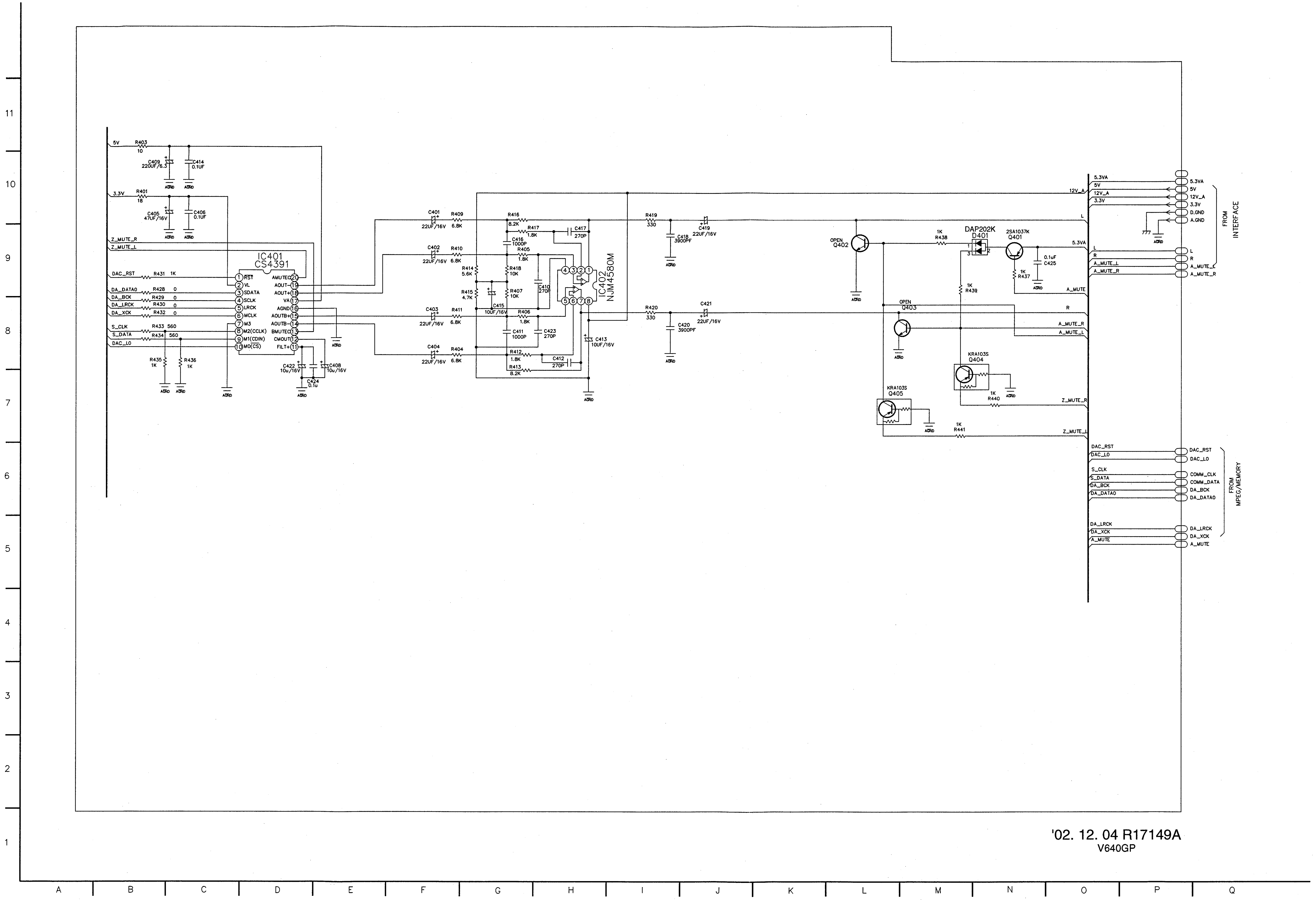
CVBS

Y/Pb/Pr(Componet)
Y/C(S-VHS)

WAVEFORM

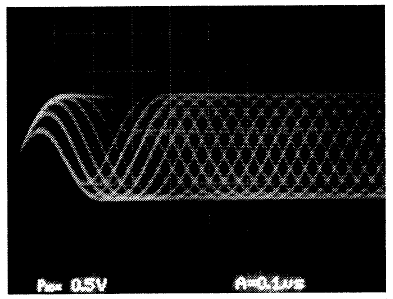
'02. 12. 04 R17146A
V640GP

# 6. JACK CIRCUIT DIAGRAM


11
10
9
8
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
5V
R403
10
C409
220UF/6.3
C414
0.1UF
AGND
3.3V
R401
18
C405
47UF/16V
C406
0.1UF
Z_MUTE_R
Z_MUTE_L
IC401
CS4391
DAC_RST
R431 1K
DA_DATA0
R428 0
DA_BCK
R429 0
DA_LRCK
R430 0
DA_XCK
R432 0
S_CLK
R433 560
S_DATA
R434 560
DAC_L0
R435
1K
R436
1K
1 RST
2 VL
3 SDATA
4 SCLK
5 LRCK
6 MCLK
7 M3
8 M2(CCLK)
9 M1(CDIN)
10 M0(CS)
AMUTEC 20
AOUT- 19
AOUT+ 18
VA 17
AGND 16
AOUTB+ 15
AOUTB- 14
BMUTEC 13
CMOUT 12
FILT+ 11
C422
10u/16V
C424
0.1u
C408
10u/16V
C401
22UF/16V
R409
6.8K
C402
22UF/16V
R410
6.8K
C403
22UF/16V
R411
6.8K
C404
22UF/16V
R404
6.8K
R416
8.2K
R417
1.8K
C417
270P
C416
1000P
R405
1.8K
R414
5.6K
R418
10K
R415
4.7K
R407
10K
C410
270P
C415
10UF/16V
R406
1.8K
C411
1000P
C423
270P
R412
1.8K
C412
270P
R413
8.2K
IC402
NJM4580M
C413
10UF/16V
R419
330
C418
3900PF
C419
22UF/16V
R420
330
C420
3900PF
C421
22UF/16V
OPEN
Q402
1K
R438
DAP202K
D401
2SA1037K
Q401
0.1uF
C425
1K
R437
1K
R439
OPEN
Q403
KRA103S
Q404
1K
R440
KRA103S
Q405
1K
R441
12V_A
L
5.3VA
A_MUTE
R
A_MUTE_R
A_MUTE_L
Z_MUTE_R
Z_MUTE_L
5.3VA
5V
12V_A
3.3V
D.GND
A.GND
L
R
A_MUTE_L
A_MUTE_R
FROM
INTERFACE
DAC_RST
DAC_L0
S_CLK
S_DATA
DA_BCK
DA_DATA0
DA_LRCK
DA_XCK
A_MUTE
DAC_RST
DAC_L0
COMM_CLK
COMM_DATA
DA_BCK
DA_DATA0
DA_LRCK
DA_XCK
A_MUTE
FROM
MPEG/MEMORY
'02. 12. 04 R17149A
V640GP

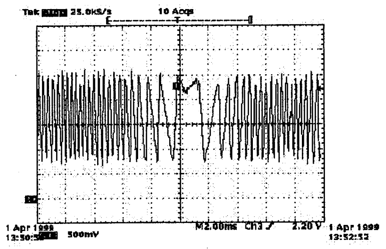
## • WAVEFORMS

①



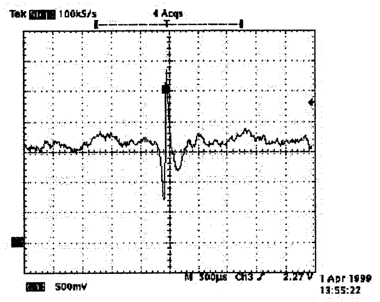
IC2A1
TP2A0

②



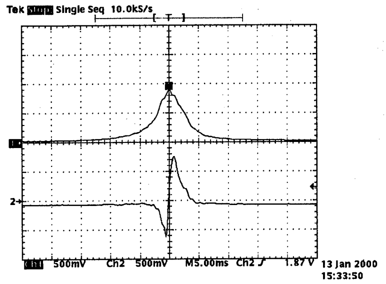
IC2A1 Pin 36
Tracking Error

③



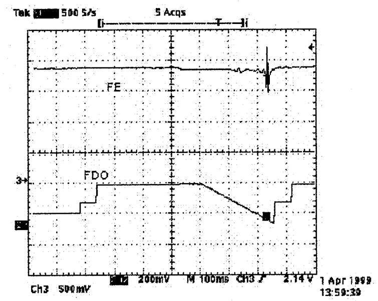
IC2A1 Pin 36
VBR TRACKING Error

④



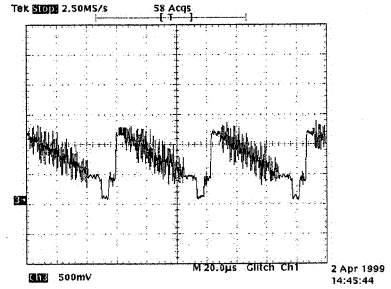
IC2A1 Pin 39, Focus Error
IC2A1 Pin 38, PE

⑤



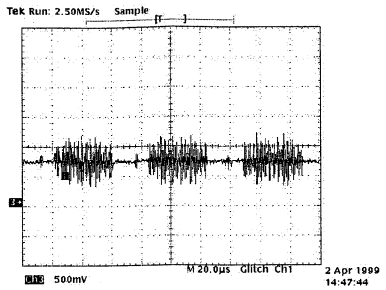
IC2A1 Pin 39, Focus Error(in Focus Search)
IC201 Pin 48, Focus Drive(FDO)

①



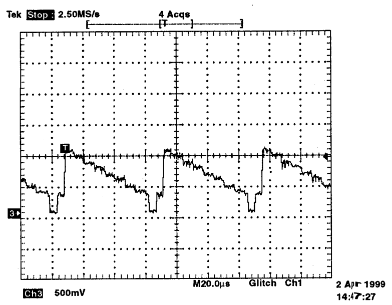
IC501 Pin 118, Composite

②



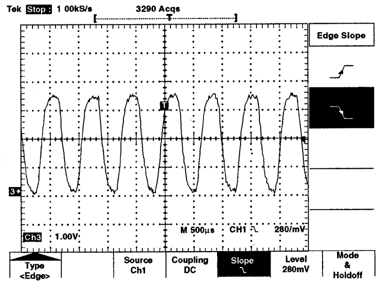
IC501 Pin 112, Chrominance
(Super video out Mode)

③



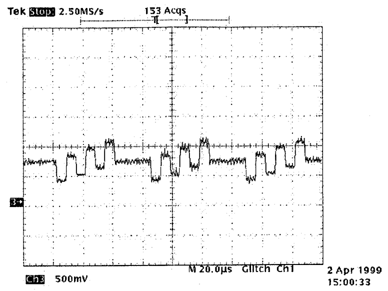
IC501 Pin 114, Luminance
(Super video out Mode)

④



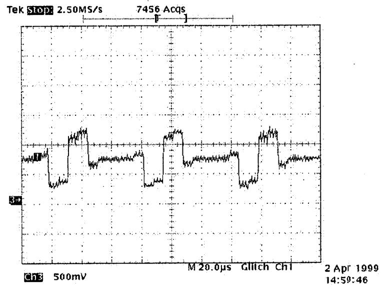
IC501 Pin 98,
MPEG Clock(27MHz)

⑤



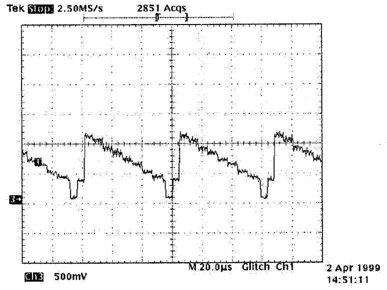
IC501 Pin 112
Component Pb

⑥



IC501 Pin 110
Component Pr

⑦



IC501 Pin 114
Component Y

# • CIRCUIT VOLTAGE CHART

| MODE / PIN NO. | STOP | PLAY |
|---|---|---|
| **DSP** | | |
| **IC201** | | |
| 1 | 3.21 | 3.07 |
| 2 | 3.21 | 3.05 |
| 3 | 3.21 | 3.07 |
| 4 | 3.21 | 3.02 |
| 5 | 3.21 | 3.05 |
| 6 | 3.21 | 3.04 |
| 7 | 3.21 | 3.05 |
| 8 | 3.21 | 3.05 |
| 9 | 0.00 | 3.05 |
| 10 | 3.21 | 0.00 |
| 11 | 3.21 | 3.04 |
| 12 | 3.21 | 0.00 |
| 13 | 3.21 | 0.00 |
| 14 | 3.21 | 0.00 |
| 15 | 3.21 | 3.03 |
| 16 | 3.21 | 3.05 |
| 17 | 3.21 | 3.04 |
| 18 | 3.21 | 0.00 |
| 19 | 3.21 | 0.00 |
| 20 | 3.21 | 0.00 |
| 21 | 3.21 | 0.00 |
| 22 | 0.01 | 0.00 |
| 23 | 0.01 | 0.03 |
| 24 | 3.21 | 0.00 |
| 25 | 3.21 | 0.00 |
| 26 | 0.02 | 0.00 |
| 27 | 0.02 | 0.00 |
| 28 | 0.02 | 0.00 |
| 29 | 0.02 | 0.00 |
| 30 | 0.02 | 0.00 |
| 31 | 0.02 | 0.00 |
| 32 | 0.02 | 0.00 |
| 33 | 3.21 | 0.00 |
| 34 | 3.21 | 0.00 |
| 35 | 3.21 | 3.19 |
| 36 | 0.02 | 0.00 |
| 37 | 1.80 | 0.00 |
| 38 | 0.02 | 0.00 |
| 39 | 0.02 | 0.00 |
| 40 | 0.02 | 0.00 |
| 41 | 1.78 | 0.00 |
| 42 | 0.02 | 1.61 |
| 43 | 0.13 | 0.20 |
| 44 | 1.78 | 1.61 |
| 45 | 0.02 | 2.70 |
| 46 | 0.02 | 2.70 |
| 47 | 0.02 | 2.70 |
| 48 | 1.78 | 1.81 |
| 49 | 3.21 | 3.20 |
| 50 | 0.01 | 0.00 |
| 51 | 0.01 | 1.57 |
| 52 | 0.01 | 1.53 |
| 53 | 0.02 | 0.00 |

| MODE / PIN NO. | EE | PLAY |
|---|---|---|
| 54 | 5.72 | 5.18 |
| 55 | 0.02 | 0.00 |
| 56 | 3.21 | 3.21 |
| 57 | 0.02 | 0.00 |
| 58 | 1.80 | 1.59 |
| 59 | 2.38 | 0.00 |
| 60 | 0.02 | 0.00 |
| 61 | 3.21 | 3.01 |
| 62 | 3.21 | 0.00 |
| 63 | 3.21 | 3.21 |
| 64 | 0.02 | 0.00 |
| 65 | 0.02 | 0.00 |
| 66 | 0.87 | 1.19 |
| 67 | 0.01 | 1.90 |
| 68 | 3.21 | 3.21 |
| 69 | 1.07 | 1.55 |
| 70 | 3.21 | 0.00 |
| 71 | 0.02 | 0.00 |
| 72 | 3.21 | 0.00 |
| 73 | 0.02 | 0.00 |
| 74 | 0.02 | 0.00 |
| 75 | 0.87 | 0.00 |
| 76 | 1.59 | 0.00 |
| 77 | 0.87 | 0.00 |
| 78 | 0.87 | 0.78 |
| 79 | 2.36 | 2.15 |
| 80 | 2.86 | 0.00 |
| 81 | 3.24 | 0.00 |
| 82 | 3.24 | 0.00 |
| 83 | 2.19 | 1.97 |
| 84 | 2.39 | 0.00 |
| 85 | 0.00 | 0.00 |
| 86 | 0.00 | 0.00 |
| 87 | 2.19 | 0.00 |
| 88 | 2.38 | 0.00 |
| 89 | 2.18 | 0.00 |
| 90 | 1.80 | 1.62 |
| 91 | 0.92 | 0.00 |
| 92 | 2.69 | 0.00 |
| 93 | 1.77 | 0.00 |
| 94 | 1.81 | 0.00 |
| 95 | 1.53 | 0.00 |
| 96 | 1.83 | 0.00 |
| 97 | 1.81 | 0.00 |
| 98 | 0.00 | 0.00 |
| 99 | 0.00 | 0.00 |
| 100 | 1.81 | 1.63 |
| 101 | 3.21 | 3.24 |
| 102 | 3.21 | 3.25 |
| 103 | 2.28 | 0.00 |
| 104 | 2.28 | 0.00 |
| 105 | 0.90 | 1.48 |
| 106 | 1.30 | 1.67 |
| 107 | 1.59 | 1.59 |
| 108 | 2.00 | 1.65 |

| MODE / PIN NO. | EE | PLAY |
|---|---|---|
| 109 | 2.00 | 1.64 |
| 110 | 2.40 | 1.60 |
| 111 | 0.02 | 0.00 |
| 112 | 0.02 | 0.00 |
| 113 | 0.02 | 0.00 |
| 114 | 0.02 | 0.00 |
| 115 | 0.02 | 0.00 |
| 116 | 0.02 | 0.00 |
| 117 | 0.02 | 0.00 |
| 118 | 0.02 | 0.00 |
| 119 | 0.02 | 0.00 |
| 120 | 3.21 | 3.22 |
| 121 | 0.70 | 3.22 |
| 122 | 3.21 | 3.22 |
| 123 | 3.21 | 1.61 |
| 124 | 0.02 | 0.00 |
| 125 | 3.21 | 1.64 |
| 126 | 3.21 | 1.61 |
| 127 | 3.00 | 0.00 |
| 128 | 0.02 | 0.00 |
| 129 | 3.21 | 2.35 |
| 130 | 3.21 | 3.25 |
| 131 | 3.21 | 1.59 |
| 132 | 0.84 | 0.02 |
| 133 | 0.02 | 0.00 |
| 134 | 3.21 | 3.22 |
| 135 | 3.21 | 2.35 |
| 136 | 2.67 | 2.39 |
| 137 | 1.85 | 1.62 |
| 138 | 2.40 | 2.12 |
| 139 | 2.68 | 2.41 |
| 140 | 2.64 | 0.30 |
| 141 | 2.64 | 3.20 |
| 142 | 3.21 | 3.22 |
| 143 | 1.12 | 2.32 |
| 144 | 0.02 | 0.00 |
| 145 | 0.02 | 0.00 |
| 146 | 2.66 | 0.30 |
| 147 | 2.67 | 0.30 |
| 148 | 2.68 | 0.30 |
| 149 | 2.68 | 0.30 |
| 150 | 1.09 | 2.33 |
| 151 | 1.09 | 0.00 |
| 152 | 0.02 | 3.22 |
| 153 | 0.02 | 0.00 |
| 154 | 0.67 | 1.53 |
| 155 | 0.90 | 0.00 |
| 156 | 3.21 | 3.22 |
| 157 | 3.21 | 3.22 |
| 158 | 0.02 | 0.00 |
| 159 | 0.00 | 0.00 |
| 160 | 0.00 | 0.00 |
| 161 | 3.02 | 2.70 |
| 162 | 3.21 | 3.24 |
| 163 | 3.21 | 3.24 |

| MODE / PIN NO. | EE | PLAY |
|---|---|---|
| 164 | 2.31 | 2.07 |
| 165 | 2.38 | 0.00 |
| 166 | 2.39 | 2.14 |
| 167 | 1.80 | 1.61 |
| 168 | 3.08 | 0.00 |
| 169 | 0.02 | 2.06 |
| 170 | 0.04 | 0.00 |
| 171 | 3.03 | 2.54 |
| 172 | 3.21 | 0.00 |
| 173 | 3.21 | 0.00 |
| 174 | 3.21 | 0.00 |
| 175 | 3.21 | 3.21 |
| 176 | 0.02 | 0.00 |
| 177 | 3.21 | 0.00 |
| 178 | 3.21 | 3.21 |
| 179 | 3.21 | 3.13 |
| 180 | 0.02 | 0.00 |
| 181 | 0.02 | 0.00 |
| 182 | 0.02 | 0.00 |
| 183 | 0.02 | 0.00 |
| 184 | 0.02 | 0.00 |
| 185 | 0.02 | 0.00 |
| 186 | 3.21 | 3.25 |
| 187 | 1.50 | 1.05 |
| 188 | 3.21 | 0.00 |
| 189 | 1.55 | 1.58 |
| 190 | 1.57 | 0.00 |
| 191 | 1.63 | 1.64 |
| 192 | 0.23 | 0.19 |
| 193 | 2.32 | 2.04 |
| 194 | 2.20 | 2.70 |
| 195 | 1.63 | 0.00 |
| 196 | 0.02 | 0.00 |
| 197 | 0.02 | 0.00 |
| 198 | 0.02 | 0.00 |
| 199 | 0.02 | 0.00 |
| 200 | 0.02 | 0.00 |
| 201 | 0.02 | 1.00 |
| 202 | 0.02 | 0.00 |
| 203 | 0.02 | 0.00 |
| 204 | 0.02 | 0.00 |
| 205 | 3.21 | 3.21 |
| 206 | 0.02 | 1.58 |
| 207 | 0.02 | 2.96 |
| 208 | 0.02 | 1.63 |
| **IC206** | | |
| 1 | 2.26 | 2.28 |
| 2 | 0.01 | 0.01 |
| 3 | 0.01 | 0.01 |
| 4 | 0.00 | 0.00 |
| 5 | 5.07 | 5.04 |
| 6 | 1.14 | 1.03 |
| 7 | 2.15 | 2.15 |
| 8 | 5.07 | 5.04 |
| | | |

| MODE / PIN NO. | EE | PLAY |
|---|---|---|
| **SERVO** | | |
| **IC2A1** | | |
| 1 | 0.00 | 0.00 |
| 2 | 3.24 | 3.02 |
| 3 | 3.24 | 3.01 |
| 4 | 1.85 | 1.99 |
| 5 | 3.35 | 3.17 |
| 6 | 2.63 | 2.43 |
| 7 | 1.10 | 0.30 |
| 8 | 1.10 | 0.30 |
| 9 | 0.00 | 0.80 |
| 10 | 1.24 | 1.18 |
| 11 | 2.54 | 2.27 |
| 12 | 3.38 | 3.13 |
| 13 | 3.34 | 3.09 |
| 14 | 2.52 | 2.70 |
| 15 | 2.64 | 1.95 |
| 16 | 0.01 | 0.14 |
| 17 | 0.02 | 0.00 |
| 18 | 0.01 | 0.00 |
| 19 | 0.01 | 0.00 |
| 20 | 0.01 | 0.00 |
| 21 | 5.41 | 5.01 |
| 22 | 5.41 | 5.01 |
| 23 | 0.02 | 0.00 |
| 24 | 0.01 | 0.00 |
| 25 | 0.01 | 0.00 |
| 26 | 0.03 | 0.00 |
| 27 | 0.01 | 0.00 |
| 28 | 3.51 | 3.24 |
| 29 | 5.58 | 5.16 |
| 30 | 0.02 | 0.00 |
| 31 | 0.03 | 0.00 |
| 32 | 0.04 | 0.00 |
| 33 | 0.03 | 0.00 |
| 34 | 5.44 | 5.01 |
| 35 | 2.45 | 2.27 |
| 36 | 3.40 | 2.51 |
| 37 | 0.78 | 2.37 |
| 38 | 0.53 | 0.00 |
| 39 | 2.40 | 2.17 |
| 40 | 0.00 | 0.22 |
| 41 | 5.44 | 3.66 |
| 42 | 0.00 | 0.00 |
| 43 | 0.00 | 0.00 |
| 44 | 5.45 | 5.01 |
| 45 | 2.47 | 2.29 |
| 46 | 2.47 | 2.29 |
| 47 | 2.47 | 2.42 |
| 48 | 0.02 | 2.42 |
| 49 | 0.01 | 2.27 |
| 50 | 2.47 | 2.43 |
| 51 | 2.47 | 2.44 |
| 52 | 2.48 | 2.38 |
| 53 | 2.47 | 2.29 |

| MODE / PIN NO. | EE | PLAY |
|---|---|---|
| 54 | 2.47 | 0.00 |
| 55 | 2.47 | 2.51 |
| 56 | 2.47 | 2.50 |
| 57 | 2.47 | 2.29 |
| 58 | 2.47 | 2.28 |
| 59 | 2.47 | 2.28 |
| 60 | 2.47 | 2.28 |
| 61 | 0.80 | 0.96 |
| 62 | 0.80 | 0.86 |
| 63 | 5.60 | 5.01 |
| 64 | 0.00 | 0.00 |
| **IC2A2** | | |
| 1 | 1.64 | 0 |
| 2 | 1.64 | 1.64 |
| 3 | 1.64 | 1.64 |
| 4 | 0.01 | 0.01 |
| 5 | 1.63 | 2.19 |
| 6 | 1.63 | 2.19 |
| 7 | 1.63 | 2.19 |
| 8 | 5.1 | 5.07 |
| **IC2A4** | | |
| 1 | 0 | 0 |
| 2 | 0.46 | 0.93 |
| 3 | 0.53 | 0.97 |
| 4 | 0 | 0 |
| 5 | 2.27 | 2.26 |
| 6 | 2.28 | 2.27 |
| 7 | 0.29 | 2.37 |
| 8 | 5.09 | 5.05 |
| **IC2M1** | | |
| 1 | 2.30 | 0.00 |
| 2 | 2.32 | 0.00 |
| 3 | 2.31 | 0.00 |
| 4 | 2.28 | 2.15 |
| 5 | 2.32 | 2.15 |
| 6 | 0.00 | 0.00 |
| 7 | 0.00 | 0.00 |
| 8 | 2.32 | 2.15 |
| 9 | 2.25 | 2.83 |
| 10 | 2.32 | 2.15 |
| 11 | 2.32 | 2.15 |
| 12 | 2.30 | 2.20 |
| 13 | 2.45 | 2.24 |
| 14 | 2.82 | 0.00 |
| 15 | 2.82 | 0.00 |
| 16 | 0.01 | 0.00 |
| 17 | 2.38 | 1.54 |
| 18 | 0.00 | 0.00 |
| 19 | 0.00 | 0.00 |
| 20 | 2.07 | 1.92 |
| 21 | 2.07 | 1.91 |
| 22 | 0.01 | 0.00 |
| 23 | 0.04 | 0.00 |
| 24 | 0.01 | 0.00 |
| 25 | 8.70 | 7.96 |

| MODE / PIN NO. | EE | PLAY |
|---|---|---|
| 26 | 4.33 | 0.00 |
| 27 | 4.32 | 4.01 |
| 28 | 4.33 | 4.05 |
| 29 | 4.36 | 3.97 |
| 30 | 0.10 | 0.00 |
| 31 | 0.01 | 0.13 |
| 32 | 4.23 | 4.92 |
| 33 | 4.50 | 0.00 |
| 34 | 0.00 | 0.00 |
| 35 | 1.71 | 0.00 |
| 36 | 1.78 | 4.00 |
| 37 | 1.73 | 4.21 |
| 38 | 1.74 | 3.75 |
| 39 | 1.92 | 0.00 |
| 40 | 1.91 | 7.89 |
| 41 | 0.00 | 0.00 |
| 42 | 0.00 | 0.00 |
| 43 | 0.00 | 0.00 |
| 44 | 0.00 | 0.00 |
| 45 | 1.94 | 0.00 |
| 46 | 2.33 | 2.15 |
| 47 | 2.33 | 0.00 |
| 48 | 2.06 | 2.15 |
| **IC301** | | |
| 1 | 3.17 | 0.38 |
| 2 | 0.00 | 0.00 |
| 3 | 0.00 | 0.00 |
| 4 | 0.00 | 0.00 |
| 5 | 3.26 | 3.26 |
| 6 | 3.25 | 3.26 |
| 7 | 0.00 | 0.00 |
| 8 | 3.25 | 3.26 |
| 9 | 0.00 | 0.00 |
| 10 | 0.00 | 3.26 |
| 11 | 0.00 | 0.00 |
| 12 | 3.24 | 3.25 |
| 13 | 3.26 | 3.26 |
| 14 | 0.00 | 0.00 |
| 15 | 0.20 | 0.00 |
| 16 | 2.16 | 2.10 |
| 17 | 1.80 | 2.19 |
| 18 | 1.57 | 2.08 |
| 19 | 0.00 | 0.00 |
| 20 | 0.00 | 0.00 |
| 21 | 0.00 | 0.00 |
| 22 | 0.00 | 0.00 |
| 23 | 0.00 | 0.00 |
| 24 | 0.00 | 0.00 |
| 25 | 0.00 | 0.00 |
| 26 | 3.25 | 3.26 |
| 27 | 0.00 | 0.00 |
| 28 | 0.00 | 0.00 |
| 29 | 0.00 | 0.00 |
| 30 | 0.00 | 0.00 |
| 31 | 0.00 | 0.00 |

| MODE / PIN NO. | EE | PLAY |
|---|---|---|
| 32 | 0.00 | 0.00 |
| 33 | 0.00 | 0.00 |
| 34 | 0.00 | 0.00 |
| 35 | 0.00 | 0.00 |
| 36 | 0.00 | 0.00 |
| 37 | 0.00 | 0.00 |
| 38 | 3.26 | 3.26 |
| 39 | 0.00 | 0.00 |
| 40 | 0.00 | 0.00 |
| 41 | 0.00 | 0.00 |
| 42 | 0.00 | 0.00 |
| 43 | 0.00 | 0.00 |
| 44 | 0.00 | 0.00 |
| 45 | 0.00 | 0.00 |
| 46 | 0.00 | 0.00 |
| 47 | 0.00 | 0.00 |
| 48 | 0.00 | 0.00 |
| 49 | 0.00 | 0.00 |
| 50 | 0.00 | 0.00 |
| 51 | 3.26 | 3.26 |
| 52 | 3.25 | 1.32 |
| 53 | 2.39 | 2.82 |
| 54 | 0.00 | 0.00 |
| 55 | 0.00 | 0.00 |
| 56 | 0.00 | 0.00 |
| 57 | 3.26 | 3.27 |
| 58 | 0.00 | 0.00 |
| 59 | 0.00 | 0.00 |
| 60 | 0.00 | 0.00 |
| 61 | 0.00 | 0.00 |
| 62 | 0.00 | 0.00 |
| 63 | 0.00 | 0.00 |
| 64 | 0.00 | 0.00 |
| 65 | 0.00 | 0.00 |
| 66 | 0.00 | 0.00 |
| 67 | 0.00 | 0.00 |
| 68 | 3.12 | 3.26 |
| 69 | 0.00 | 0.00 |
| 70 | 3.25 | 3.26 |
| 71 | 3.12 | 3.23 |
| 72 | 0.00 | 0.00 |
| 73 | 0.00 | 0.00 |
| 74 | 3.12 | 3.23 |
| 75 | 0.00 | 0.00 |
| 76 | 0.00 | 0.00 |
| 77 | 0.00 | 0.00 |
| 78 | 2.62 | 3.60 |
| 79 | 2.49 | 2.76 |
| 80 | 0.00 | 0.00 |
| 81 | 0.00 | 0.00 |
| 82 | 3.26 | 3.26 |
| 83 | 0.00 | 0.00 |
| 84 | 0.00 | 0.00 |
| 85 | 5.06 | 5.04 |
| 86 | 0.00 | 0.00 |

| MODE / PIN NO. | EE | PLAY |
|---|---|---|
| 87 | 0.00 | 0.00 |
| 88 | 3.26 | 3.26 |
| 89 | 3.18 | 3.31 |
| 90 | 3.25 | 3.26 |
| 91 | 0.00 | 2.26 |
| 92 | 3.26 | 3.26 |
| 93 | 3.26 | 3.26 |
| 94 | 0.00 | 0.00 |
| 95 | 1.69 | 1.68 |
| 96 | 0.00 | 0.00 |
| 97 | 3.26 | 3.26 |
| 98 | 3.26 | 3.26 |
| 99 | 5.05 | 5.04 |
| 100 | 0.00 | 0.00 |
| **MPEG** | | |
| **IC501** | | |
| 1 | 3.23 | 3.21 |
| 2 | 0.63 | 0.00 |
| 3 | 0.53 | 0.00 |
| 4 | 1.76 | 1.76 |
| 5 | 3.23 | 0.68 |
| 6 | 0.00 | 0.00 |
| 7 | 0.00 | 0.00 |
| 8 | 0.48 | 0.64 |
| 9 | 0.40 | 0.63 |
| 10 | 3.23 | 3.21 |
| 11 | 0.00 | 0.00 |
| 12 | 0.05 | 0.13 |
| 13 | 0.08 | 0.14 |
| 14 | 0.00 | 0.00 |
| 15 | 1.61 | 1.75 |
| 16 | 0.00 | 1.57 |
| 17 | 0.00 | 0.00 |
| 18 | 1.61 | 1.76 |
| 19 | 3.23 | 3.21 |
| 20 | 0.99 | 1.48 |
| 21 | 1.68 | 1.64 |
| 22 | 2.75 | 2.83 |
| 23 | 0.00 | 1.35 |
| 24 | 3.23 | 3.21 |
| 25 | 1.60 | 1.75 |
| 26 | 1.54 | 1.33 |
| 27 | 3.23 | 3.21 |
| 28 | 1.86 | 0.38 |
| 29 | 0.04 | 0.35 |
| 30 | 0.05 | 0.09 |
| 31 | 0.00 | 0.80 |
| 32 | 2.43 | 2.00 |
| 33 | 0.84 | 0.84 |
| 34 | 1.76 | 1.76 |
| 35 | 2.90 | 2.89 |
| 36 | 3.23 | 7.21 |
| 37 | 3.18 | 0.50 |
| 38 | 0.32 | 0.30 |
| 39 | 3.21 | 3.22 |

| MODE / PIN NO. | EE | PLAY |
|---|---|---|
| 40 | 0.00 | 0.00 |
| 41 | 0.00 | 0.00 |
| 42 | 0.06 | 0.00 |
| 43 | 2.94 | 0.00 |
| 44 | 3.23 | 3.23 |
| 45 | 1.14 | 0.05 |
| 46 | 0.69 | 0.04 |
| 47 | 0.00 | 0.00 |
| 48 | 0.60 | 0.28 |
| 49 | 0.00 | 0.00 |
| 50 | 0.74 | 0.79 |
| 51 | 0.50 | 0.67 |
| 52 | 0.49 | 0.80 |
| 53 | 3.23 | 3.23 |
| 54 | 0.42 | 0.90 |
| 55 | 1.30 | 0.64 |
| 56 | 0.48 | 0.45 |
| 57 | 0.00 | 0.00 |
| 58 | 0.55 | 0.62 |
| 59 | 0.67 | 0.60 |
| 60 | 1.11 | 0.69 |
| 61 | 0.58 | 0.18 |
| 62 | 3.23 | 3.22 |
| 63 | 0.50 | 0.24 |
| 64 | 0.30 | 0.73 |
| 65 | 0.00 | 0.00 |
| 66 | 0.48 | 1.68 |
| 67 | 0.00 | 0.40 |
| 68 | 0.00 | 1.56 |
| 69 | 0.00 | 0.00 |
| 70 | 0.45 | 0.59 |
| 71 | 0.00 | 1.21 |
| 72 | 0.00 | 1.23 |
| 73 | 0.00 | 1.21 |
| 74 | 3.23 | 1.22 |
| 75 | 3.23 | 3.22 |
| 76 | 1.56 | 1.56 |
| 77 | 1.76 | 1.76 |
| 78 | 1.61 | 1.61 |
| 79 | 1.62 | 1.62 |
| 80 | 3.23 | 3.21 |
| 81 | 2.92 | 2.92 |
| 82 | 0.00 | 0.00 |
| 83 | 0.39 | 0.50 |
| 84 | 0.00 | 1.25 |
| 85 | 0.00 | 0.00 |
| 86 | 0.00 | 0.00 |
| 87 | 3.23 | 3.20 |
| 88 | 3.23 | 3.22 |
| 89 | 1.76 | 1.75 |
| 90 | 0.07 | 0.40 |
| 91 | 3.23 | 3.21 |
| 92 | 0.00 | 0.00 |
| 93 | 3.23 | 3.22 |
| 94 | 0.09 | 0.36 |

| MODE PIN NO. | EE | PLAY |
|---|---|---|
| 95 | 0.16 | 0.37 |
| 96 | 3.23 | 3.21 |
| 97 | 0.00 | 0.00 |
| 98 | 0.92 | 0.92 |
| 99 | 0.98 | 0.96 |
| 100 | 0.00 | 0.00 |
| 101 | 1.76 | 1.75 |
| 102 | 3.23 | 3.21 |
| 103 | 0.00 | 0.00 |
| 104 | 0.00 | 0.00 |
| 105 | 0.00 | 0.00 |
| 106 | 0.00 | 0.00 |
| 107 | 3.23 | 3.21 |
| 108 | 1.76 | 1.76 |
| 109 | 0.00 | 0.00 |
| 110 | 0.19 | 1.32 |
| 111 | 0.83 | 0.90 |
| 112 | 3.21 | 3.21 |
| 113 | 0.91 | 3.20 |
| 114 | 0.00 | 0.59 |
| 115 | 0.00 | 0.00 |
| 116 | 1.28 | 1.28 |
| 117 | 1.10 | 0.31 |
| 118 | 0.45 | 0.24 |
| 119 | 1.28 | 1.28 |
| 120 | 1.97 | 0.00 |
| 121 | 0.00 | 0.00 |
| 122 | 0.00 | 0.00 |
| 123 | 0.53 | 0.72 |
| 124 | 0.57 | 0.72 |
| 125 | 3.23 | 3.23 |
| 126 | 1.83 | 0.72 |
| 127 | 0.00 | 3.23 |
| 128 | 3.22 | 0.00 |
| 129 | 0.00 | 0.00 |
| 130 | 1.75 | 1.41 |
| 131 | 0.00 | 0.00 |
| 132 | 0.00 | 0.00 |
| 133 | 0.00 | 3.21 |
| 134 | 3.23 | 0.00 |
| 135 | 1.76 | 1.75 |
| 136 | 0.00 | 0.00 |
| 137 | 0.00 | 0.00 |
| 138 | 0.00 | 0.00 |
| 139 | 0.00 | 0.00 |
| 140 | 3.27 | 3.21 |
| 141 | 0.00 | 0.00 |
| 142 | 0.00 | 0.00 |
| 143 | 0.00 | 0.00 |
| 144 | 0.00 | 0.00 |
| 145 | 3.23 | 3.21 |
| 146 | 0.00 | 0.00 |
| 147 | 0.00 | 0.00 |
| 148 | 0.00 | 0.00 |
| 149 | 0.00 | 0.00 |

| MODE PIN NO. | EE | PLAY |
|---|---|---|
| 150 | 0.00 | 0.00 |
| 151 | 0.00 | 0.00 |
| 152 | 0.00 | 0.00 |
| 153 | 0.00 | 0.00 |
| 154 | 3.23 | 3.22 |
| 155 | 0.00 | 0.00 |
| 156 | 3.23 | 3.21 |
| 157 | 0.00 | 0.00 |
| 158 | 1.75 | 0.00 |
| 159 | 1.76 | 1.76 |
| 160 | 1.84 | 1.84 |
| 161 | 3.23 | 3.21 |
| 162 | 0.00 | 0.00 |
| 163 | 0.00 | 0.00 |
| 164 | 0.00 | 0.00 |
| 165 | 0.00 | 0.00 |
| 166 | 0.00 | 0.00 |
| 167 | 0.00 | 0.00 |
| 168 | 0.00 | 0.00 |
| 169 | 3.23 | 3.21 |
| 170 | 3.23 | 3.21 |
| 171 | 0.00 | 0.00 |
| 172 | 0.00 | 1.00 |
| 173 | 1.00 | 1.12 |
| 174 | 0.99 | 1.14 |
| 175 | 0.19 | 0.19 |
| 176 | 0.94 | 1.71 |
| 177 | 0.00 | 0.00 |
| 178 | 0.98 | 1.77 |
| 179 | 0.98 | 1.79 |
| 180 | 0.97 | 1.04 |
| 181 | 3.23 | 3.22 |
| 182 | 3.23 | 3.22 |
| 183 | 0.00 | 0.00 |
| 184 | 0.00 | 0.72 |
| 185 | 3.23 | 0.22 |
| 186 | 3.23 | 2.44 |
| 187 | 0.00 | 0.00 |
| 188 | 0.00 | 0.00 |
| 189 | 1.83 | 3.22 |
| 190 | 0.00 | 0.00 |
| 191 | 1.74 | 0.00 |
| 192 | 1.76 | 0.36 |
| 193 | 3.23 | 3.23 |
| 194 | 3.29 | 0.00 |
| 195 | 3.30 | 0.00 |
| 196 | 3.23 | 0.11 |
| 197 | 3.12 | 0.00 |
| 198 | 0.00 | 3.23 |
| 199 | 0.00 | 3.22 |
| 200 | 0.18 | 3.22 |
| 201 | 0.00 | 0.00 |
| 202 | 0.17 | 3.22 |
| 203 | 0.13 | 3.22 |
| 204 | 0.00 | 0.00 |

| MODE PIN NO. | EE | PLAY |
|---|---|---|
| 205 | 0.10 | 3.23 |
| 206 | 0.00 | 0.00 |
| 207 | 0.18 | 3.22 |
| 208 | 0.14 | 0.00 |
| 209 | 0.18 | 3.22 |
| 210 | 3.23 | 3.21 |
| 211 | 0.18 | 3.22 |
| 212 | 1.76 | 1.24 |
| 213 | 0.11 | 3.22 |
| 214 | 0.18 | 2.85 |
| 215 | 0.10 | 1.61 |
| 216 | 0.10 | 3.22 |
| 217 | 0.10 | 3.22 |
| 218 | 0.00 | 0.00 |
| 219 | 0.05 | 0.00 |
| 220 | 0.39 | 3.10 |
| 221 | 0.00 | 3.09 |
| 222 | 0.18 | 3.10 |
| 223 | 0.10 | 0.00 |
| 224 | 3.23 | 3.21 |
| 225 | 0.00 | 0.13 |
| 226 | 0.00 | 0.14 |
| 227 | 0.00 | 0.73 |
| 228 | 0.00 | 0.00 |
| 229 | 0.00 | 0.49 |
| 230 | 0.00 | 0.00 |
| 231 | 0.00 | 0.67 |
| 232 | 0.06 | 0.62 |
| 233 | 3.23 | 3.22 |
| 234 | 0.06 | 0.80 |
| 235 | 0.06 | 0.58 |
| 236 | 0.07 | 0.45 |
| 237 | 0.00 | 0.00 |
| 238 | 0.06 | 0.83 |
| 239 | 0.06 | 1.47 |
| 240 | 0.06 | 1.44 |
| **AUDIO** | | |
| **IC401** | | |
| 1 | 3.25 | 3.26 |
| 2 | 3.25 | 3.26 |
| 3 | 0.00 | 0.00 |
| 4 | 1.57 | 1.57 |
| 5 | 1.58 | 1.58 |
| 6 | 1.54 | 1.55 |
| 7 | 0.00 | 0.00 |
| 8 | 3.23 | 3.26 |
| 9 | 0.75 | 0.00 |
| 10 | 3.26 | 3.26 |
| 11 | 4.79 | 0.03 |
| 12 | 2.27 | 0.03 |
| 13 | 0.27 | 4.66 |
| 14 | 2.32 | 2.29 |
| 15 | 2.30 | 2.27 |
| 16 | 0.00 | 0.00 |
| 17 | 4.88 | 4.82 |

| MODE PIN NO. | EE | PLAY |
|---|---|---|
| 18 | 2.30 | 2.28 |
| 19 | 2.33 | 2.29 |
| 20 | 0.27 | 4.66 |
| **IC402** | | |
| 1 | 5.40 | 5.40 |
| 2 | 5.41 | 5.40 |
| 3 | 5.40 | 5.40 |
| 4 | 0.00 | 0.00 |
| 5 | 5.40 | 5.40 |
| 6 | 5.41 | 0.00 |
| 7 | 5.42 | 0.00 |
| 8 | 11.39 | 11.96 |
| **MEMORY** | | |
| **IC203** | | |
| 1 | 3.27 | 3.05 |
| 2 | 3.25 | 3.01 |
| 3 | 3.25 | 3.02 |
| 4 | 0.00 | 0.00 |
| 5 | 0.05 | 3.02 |
| 6 | 0.05 | 3.02 |
| 7 | 0.00 | 3.25 |
| 8 | 0.05 | 3.02 |
| 9 | 0.05 | 3.06 |
| 10 | 0.00 | 0.00 |
| 11 | 0.05 | 3.08 |
| 12 | 0.05 | 3.01 |
| 13 | 0.00 | 3.23 |
| 14 | 0.00 | 0.00 |
| 15 | 0.05 | 3.19 |
| 16 | 0.05 | 3.19 |
| 17 | 0.05 | 3.18 |
| 18 | 0.00 | 0.00 |
| 19 | 0.05 | 0.00 |
| 20 | 0.05 | 3.17 |
| 21 | 0.05 | 0.00 |
| 22 | 0.05 | 0.00 |
| 23 | 0.05 | 0.00 |
| 24 | 0.05 | 0.03 |
| 25 | 0.00 | 3.25 |
| 26 | 0.00 | 0.00 |
| 27 | 0.05 | 0.03 |
| 28 | 0.05 | 0.03 |
| 29 | 0.05 | 0.03 |
| 30 | 0.05 | 0.03 |
| 31 | 0.05 | 0.03 |
| 32 | 0.00 | 0.03 |
| 33 | 0.00 | 0.00 |
| 34 | 0.00 | 3.25 |
| 35 | 0.05 | 1.62 |
| 36 | 0.05 | 0.01 |
| 37 | 0.00 | 0.00 |
| 38 | 0.00 | 3.25 |
| 39 | 0.05 | 3.05 |
| 40 | 0.05 | 3.05 |
| 41 | 0.00 | 0.00 |

| MODE PIN NO. | EE | PLAY |
|---|---|---|
| 42 | 0.05 | 3.05 |
| 43 | 0.00 | 3.04 |
| 44 | 0.00 | 3.25 |
| 45 | 0.00 | 3.05 |
| 46 | 0.00 | 3.04 |
| 47 | 0.00 | 0.00 |
| 48 | 0.00 | 3.04 |
| 49 | 0.05 | 3.04 |
| 50 | 0.00 | 0.00 |
| **IC3F1** | | |
| 1 | 0.00 | 0.00 |
| 2 | 0.00 | 0.00 |
| 3 | 0.00 | 0.00 |
| 4 | 0.00 | 0.00 |
| 5 | 0.00 | 0.00 |
| 6 | 0.00 | 0.00 |
| 7 | 0.00 | 0.00 |
| 8 | 0.00 | 0.00 |
| 9 | 2.38 | 2.78 |
| 10 | 0.00 | 0.00 |
| 11 | 0.00 | 3.23 |
| 12 | 3.26 | 3.26 |
| 13 | 3.26 | 3.26 |
| 14 | 0.00 | 0.00 |
| 15 | 0.00 | 0.00 |
| 16 | 3.26 | 1.40 |
| 17 | 0.00 | 0.00 |
| 18 | 0.00 | 0.00 |
| 19 | 0.00 | 0.00 |
| 20 | 0.00 | 0.00 |
| 21 | 0.00 | 0.00 |
| 22 | 0.00 | 0.00 |
| 23 | 0.00 | 0.00 |
| 24 | 0.00 | 1.76 |
| 25 | 3.23 | 3.15 |
| 26 | 3.26 | 3.26 |
| 27 | 0.00 | 0.00 |
| 28 | 3.23 | 3.22 |
| 29 | 1.98 | 1.76 |
| 30 | 0.00 | 0.00 |
| 31 | 1.91 | 1.90 |
| 32 | 0.00 | 0.00 |
| 33 | 1.45 | 1.65 |
| 34 | 0.00 | 0.00 |
| 35 | 1.45 | 1.90 |
| 36 | 0.00 | 0.00 |
| 37 | 3.26 | 3.26 |
| 38 | 0.19 | 0.19 |
| 39 | 0.00 | 0.00 |
| 40 | 2.09 | 2.16 |
| 41 | 0.00 | 0.00 |
| 42 | 1.19 | 2.19 |
| 43 | 0.00 | 0.00 |
| 44 | 1.95 | 2.11 |
| 45 | 0.00 | 0.00 |

| MODE PIN NO. | EE | PLAY |
|---|---|---|
| 46 | 0.00 | 0.00 |
| 47 | 3.26 | 3.26 |
| 48 | 0.00 | 0.00 |
| **IC305** | | |
| 1 | 3.23 | 3.23 |
| 2 | 0.52 | 0.62 |
| 3 | 0.11 | 3.22 |
| 4 | 0.30 | 0.57 |
| 5 | 0.60 | 0.76 |
| 6 | 0.00 | 0.00 |
| 7 | 0.47 | 0.00 |
| 8 | 0.00 | 0.00 |
| 9 | 0.00 | 0.00 |
| 10 | 0.40 | 0.00 |
| 11 | 0.39 | 0.00 |
| 12 | 0.00 | 0.00 |
| 13 | 0.42 | 0.00 |
| 14 | 0.48 | 0.00 |
| 15 | 3.24 | 3.25 |
| 16 | 0.11 | 0.00 |
| 17 | 0.10 | 3.16 |
| 18 | 0.09 | 0.00 |
| 19 | 0.05 | 0.00 |
| 20 | 0.00 | 0.00 |
| 21 | 0.00 | 0.00 |
| 22 | 0.00 | 3.16 |
| 23 | 1.58 | 0.00 |
| 24 | 0.05 | 0.00 |
| 25 | 1.81 | 3.16 |
| 26 | 1.50 | 3.16 |
| 27 | 1.54 | 3.20 |
| 28 | 0.00 | 3.16 |
| 29 | 3.24 | 0.00 |
| 30 | 0.00 | 0.00 |
| 31 | 0.63 | 0.00 |
| 32 | 0.00 | 3.16 |
| 33 | 0.45 | 0.00 |
| 34 | 0.95 | 1.79 |
| 35 | 3.23 | 0.00 |
| 36 | 0.69 | 3.20 |
| 37 | 1.10 | 0.00 |
| 38 | 0.00 | 0.00 |
| 39 | 0.64 | 0.00 |
| 40 | 0.54 | 0.00 |
| 41 | 3.24 | 3.25 |
| 42 | 0.55 | 0.00 |
| 43 | 3.23 | 3.25 |
| 44 | 0.00 | 0.00 |
| 45 | 0.29 | 0.00 |
| 46 | 0.30 | 0.00 |
| 47 | 0.40 | 0.00 |
| 48 | 0.62 | 0.00 |
| 49 | 0.65 | 3.26 |
| 50 | 0.62 | 0.00 |
| 51 | 0.45 | 0.00 |

| MODE PIN NO. | EE | PLAY |
|---|---|---|
| 52 | 0.00 | 0.00 |
| 53 | 0.57 | 0.00 |
| 54 | 0.34 | 0.00 |
| 55 | 0.28 | 3.25 |
| 56 | 0.52 | 0.00 |
| 57 | 0.00 | 0.02 |
| 58 | 0.00 | 0.00 |
| 59 | 0.00 | 0.00 |
| 60 | 1.64 | 0.00 |
| 61 | 0.95 | 0.00 |
| 62 | 0.95 | 3.16 |
| 63 | 1.49 | 0.00 |
| 64 | 1.61 | 3.16 |
| 65 | 0.00 | 0.00 |
| 66 | 0.00 | 0.00 |
| 67 | 3.14 | 3.16 |
| 68 | 2.26 | 0.00 |
| 69 | 0.00 | 0.00 |
| 70 | 0.00 | 0.00 |
| 71 | 0.00 | 0.00 |
| 72 | 0.00 | 0.00 |
| 73 | 0.00 | 0.00 |
| 74 | 0.30 | 0.00 |
| 75 | 3.24 | 3.26 |
| 76 | 0.39 | 0.00 |
| 77 | 0.40 | 0.00 |
| 78 | 0.00 | 0.00 |
| 79 | 0.66 | 0.00 |
| 80 | 0.46 | 0.00 |
| 81 | 3.24 | 3.26 |
| 82 | 0.59 | 0.00 |
| 83 | 0.31 | 0.00 |
| 84 | 0.00 | 0.00 |
| 85 | 0.53 | 0.00 |
| 86 | 0.00 | 0.00 |
| **ETC** | | |
| **IC502** | | |
| 1 | 0.00 | 0.00 |
| 2 | 5.05 | 5.05 |
| 3 | 1.18 | 0.62 |
| 4 | 0.72 | 1.69 |
| 5 | 0.00 | 0.00 |
| 6 | 5.06 | 5.04 |
| 7 | 0.00 | 0.00 |
| 8 | 5.06 | 5.04 |
| **IC503** | | |
| 1 | 0.00 | 0.00 |
| 2 | 3.13 | 3.12 |
| 3 | 5.05 | 5.05 |
| 4 | 0.00 | 3.12 |
| 5 | 0.00 | 0.64 |
| 6 | 0.00 | 0.00 |
| 7 | 2.67 | 2.65 |
| 8 | 0.00 | 3.24 |
| 9 | 0.00 | 0.00 |

| MODE PIN NO. | EE | PLAY |
|---|---|---|
| 10 | 0.00 | 0.00 |
| 11 | 0.52 | 1.67 |
| 12 | 0.50 | 5.18 |
| 13 | 1.70 | 1.70 |
| 14 | 0.00 | 0.00 |
| 15 | 0.82 | 0.38 |
| 16 | 0.00 | 5.17 |
| 17 | 3.11 | 3.11 |
| 18 | 5.18 | 5.17 |
| 19 | 0.00 | 0.00 |
| 20 | 5.18 | 5.18 |
| **IC506** | | |
| 1 | 3.25 | 3.25 |
| 2 | 0.00 | 0.00 |
| 3 | 1.81 | 1.81 |

| MODE PIN NO. | STOP | PLAY |
|---|---|---|
| **CONNECTOR** | | |
| **PDV02** | | |
| 1 | 0.00 | 0.00 |
| 2 | 0.00 | 0.00 |
| 3 | 1.55 | 1.55 |
| 4 | 0.00 | 0.00 |
| 5 | 0.00 | 0.00 |
| 6 | 0.00 | 0.00 |
| 7 | 4.92 | 4.92 |
| 8 | 5.20 | 5.20 |
| 9 | 5.06 | 5.06 |
| 10 | 0.00 | 0.00 |
| 11 | 1.12 | 1.16 |
| 12 | 0.00 | 0.00 |
| **PDV03** | | |
| 1 | 0.87 | 0.65 |
| 2 | 0.00 | 0.00 |
| 3 | 1.44 | 0.00 |
| 4 | 0.00 | 0.00 |
| 5 | 1.28 | 1.32 |
| 6 | 0.00 | 0.00 |
| 7 | 0.43 | 0.28 |
| 8 | 0.00 | 0.00 |
| 9 | 0.00 | 0.32 |
| 10 | 0.00 | 2.52 |
| 11 | 0.00 | 0.00 |
| 12 | 0.00 | 0.00 |
| 13 | 0.00 | 0.00 |
| 14 | 0.75 | 1.38 |
| 15 | 0.26 | 0.47 |
| **PMD02** | | |
| 1 | 5.10 | 5.07 |
| 2 | 1.37 | 2.20 |
| 3 | 0.00 | 0.00 |
| 4 | 0.00 | 0.00 |
| 5 | 0.00 | 0.00 |
| 6 | 0.00 | 0.00 |
| 7 | 2.28 | 2.27 |
| 8 | 5.10 | 5.07 |
| 9 | 2.28 | 2.49 |
| 10 | 2.28 | 2.50 |
| 11 | 2.29 | 2.39 |
| 12 | 2.29 | 2.40 |
| 13 | 2.29 | 2.39 |
| 14 | 2.29 | 2.40 |
| 15 | 3.96 | 4.22 |
| 16 | 4.00 | 4.01 |
| 17 | 3.97 | 3.97 |
| 18 | 3.99 | 3.82 |
| 19 | 5.10 | 5.07 |
| 20 | 0.00 | 0.00 |
| 21 | 0.00 | 1.82 |
| 22 | 0.00 | 0.23 |
| 23 | 0.00 | 0.00 |

| MODE PIN NO. | STOP | PLAY |
|---|---|---|
| **PMD03** | | |
| 1 | 1.21 | 5.04 |
| 2 | 1.21 | 3.00 |
| 3 | 4.01 | 4.06 |
| 4 | 3.97 | 3.93 |
| 5 | 3.97 | 4.02 |
| 6 | 3.97 | 4.02 |
| 7 | 0.00 | 5.07 |
| 8 | 5.10 | 0.00 |
| 9 | 0.00 | 0.00 |
| 10 | 5.10 | 5.07 |
| 11 | 0.00 | 0.00 |

| MODE / PIN NO. | EE | PLAY |
|---|---|---|
| **CAPACITOR** | | |
| C3F3 | 3.25 | |
| C293 | 3.25 | |
| C262 | 3.25 | |
| C281 | 1.60 | |
| C279 | 2.14 | |
| C285 | 2.07 | |
| C297 | 3.25 | |
| C280 | 2.71 | |
| C278 | 2.13 | |
| C208 | 3.25 | |
| C240 | 5.02 | |
| C232 | 3.23 | |
| C231 | 2.07 | |
| C288 | 2.06 | |
| C2C9 | 5.02 | |
| C284 | 3.24 | |
| C211 | 1.62 | |
| C212 | 0.82 | |
| C274 | 3.25 | |
| C213 | 2.42 | |
| C272 | 2.15 | |
| C263 | 3.25 | |
| C264 | 3.25 | |
| C261 | 3.25 | |
| C321 | 3.25 | |
| C2D5 | 2.26 | |
| C2A4 | 5.02 | |
| C2C2 | 2.27 | |
| C2D1 | 5.02 | |
| C507 | 3.19 | |
| C539 | 3.19 | |
| C561 | 5.04 | |
| C504 | 3.25 | |
| C308 | 3.24 | |
| C317 | 3.24 | |
| C309 | 1.79 | |
| C409 | 4.86 | |
| C405 | 3.25 | |
| C408 | 2.22 | |
| C422 | 4.78 | |
| C404 | 5.40 | |
| C402 | 5.39 | |
| C401 | 5.40 | |
| C419 | 5.41 | |
| C420 | 5.40 | |
| C415 | 5.40 | |
| C403 | 5.39 | |
| C413 | 11.97 | |
| C2M1 | 7.94 | |
| C2D4 | 5.04 | |
| C2M8 | 5.02 | |
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| MODE / PIN NO. | STOP | PLAY |
|---|---|---|
| **Q2A1** | | |
| E | 5.09 | 5.05 |
| B | 5.09 | 5.24 |
| C | 0.00 | 0.00 |
| **Q2A2** | | |
| E | 5.07 | 0.00 |
| B | 5.07 | 0.00 |
| C | 0.00 | 1.82 |
| **Q2A5** | | |
| E | 2.83 | 2.36 |
| B | 3.21 | 3.12 |
| C | 5.09 | 3.84 |
| **Q2A6** | | |
| E | 2.29 | 2.43 |
| B | 3.11 | 3.20 |
| C | 2.70 | 3.66 |
| **Q2M1** | | |
| E | 0.00 | 0.00 |
| B | 0.00 | 0.00 |
| C | 3.26 | 3.23 |
| **Q401** | | |
| E | 5.17 | 5.17 |
| B | 4.48 | 0.00 |
| C | 5.17 | 0.00 |
| **Q404** | | |
| E | 1.55 | 0.00 |
| B | 0.00 | 0.00 |
| C | 0.75 | 0.00 |
| **Q405** | | |
| E | 1.56 | 0.00 |
| B | 0.00 | 0.00 |
| C | 0.75 | 0.00 |
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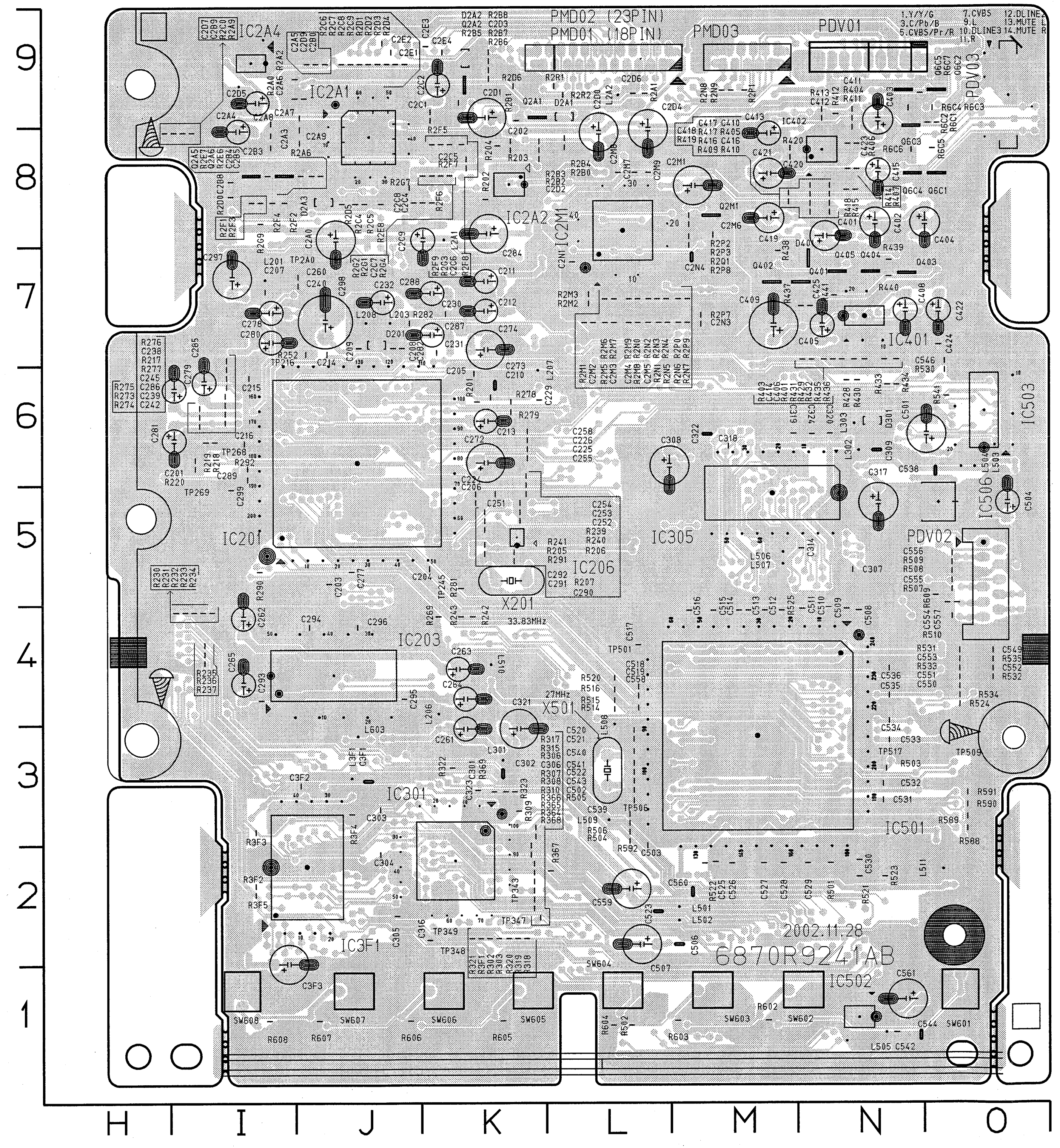
# PRINTED CIRCUIT DIAGRAMS

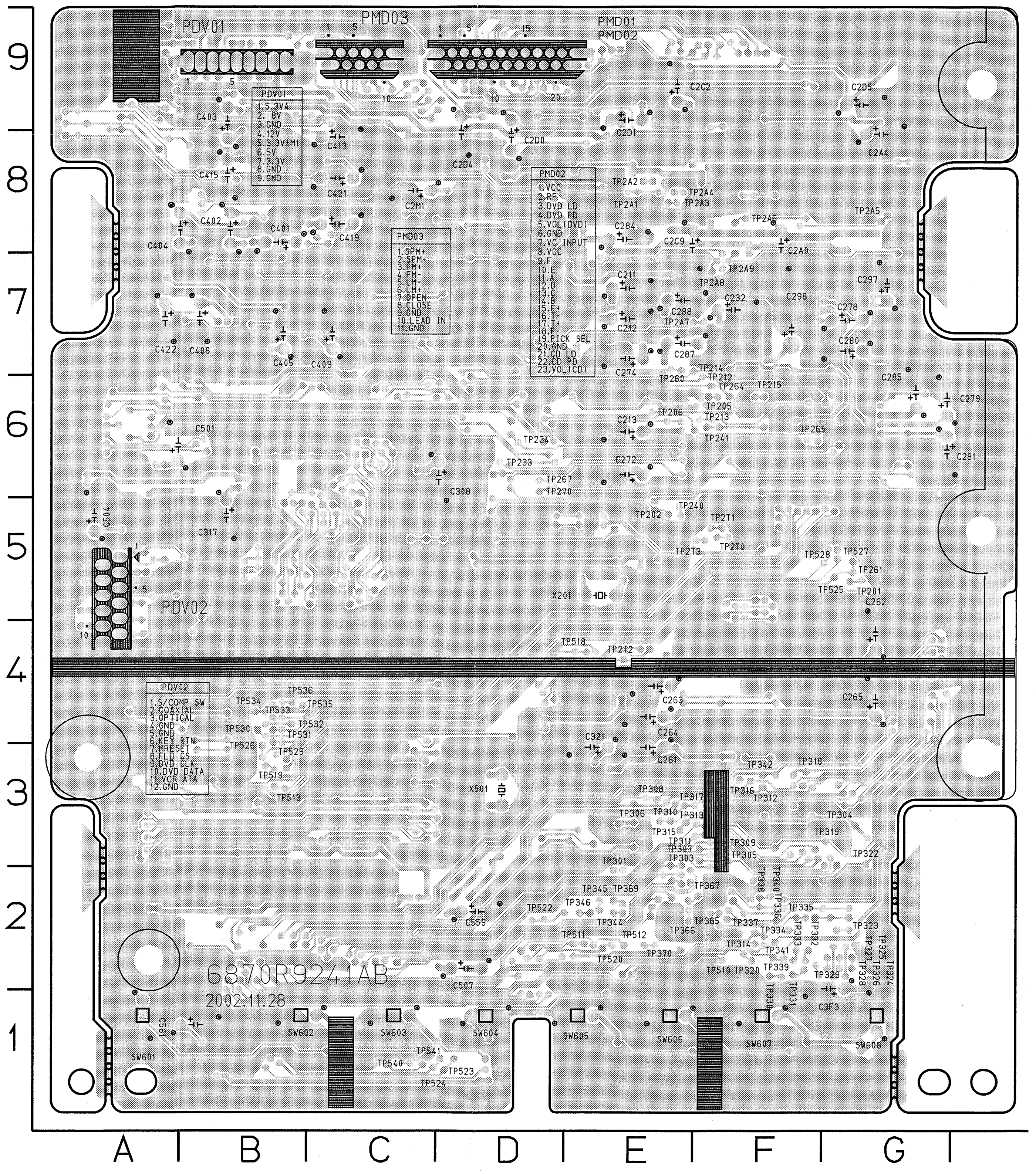
## 1. MAIN P.C.BOARD (TOP VIEW)



## LOCATION GUIDE

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C201 | I6 | C293 | I4 | C305 | J2 | C518 | L4 | IC502 | N1 | R230 | I4 | R2F1 | I8 | R364 | K2 | R522 | M2 |
| C202 | K8 | C294 | J4 | C306 | K2 | C519 | L4 | IC503 | O6 | R231 | I4 | R2F2 | I8 | R365 | K2 | R523 | N2 |
| C203 | J5 | C295 | J4 | C307 | N5 | C520 | L3 | IC506 | O5 | R232 | I4 | R2F3 | I8 | R366 | K2 | R524 | O4 |
| C204 | K5 | C296 | J4 | C308 | L6 | C521 | L3 | L201 | I7 | R233 | I4 | R2F4 | I8 | R367 | L2 | R525 | M4 |
| C205 | K6 | C297 | I7 | C309 | N6 | C522 | L3 | L203 | J7 | R234 | I4 | R2F5 | K9 | R368 | K2 | R530 | O6 |
| C206 | K5 | C298 | J7 | C314 | N5 | C523 | L2 | L206 | K4 | R235 | I4 | R2F6 | K8 | R369 | K3 | R531 | O4 |
| C207 | I7 | C299 | I5 | C316 | K2 | C525 | M2 | L207 | K6 | R236 | I4 | R2F7 | K8 | R3F1 | K2 | R532 | O4 |
| C208 | J7 | C2A0 | J8 | C317 | N5 | C526 | M2 | L208 | J7 | R237 | I4 | R2F8 | K8 | R3F2 | I2 | R533 | O4 |
| C209 | J7 | C2A3 | I8 | C318 | M6 | C527 | M2 | L2A1 | K8 | R239 | K5 | R2F9 | K8 | R3F3 | I3 | R534 | O4 |
| C210 | K6 | C2A4 | I8 | C319 | M6 | C528 | M2 | L2A2 | L9 | R240 | K5 | R2G1 | K8 | R3F4 | J3 | R535 | O4 |
| C211 | K7 | C2A5 | J9 | C320 | N6 | C529 | N2 | L301 | K3 | R241 | K5 | R2G2 | K8 | R3F5 | I2 | R541 | O6 |
| C212 | K7 | C2A6 | J9 | C321 | K3 | C530 | N2 | L302 | N6 | R242 | K4 | R2G3 | K8 | R401 | N7 | R588 | O3 |
| C213 | K6 | C2A7 | J9 | C322 | M6 | C531 | N3 | L303 | N6 | R243 | K4 | R2G4 | K8 | R403 | N7 | R589 | O3 |
| C214 | J7 | C2A8 | I9 | C323 | K3 | C532 | N3 | L3F1 | J3 | R252 | J7 | R2G7 | J8 | R404 | N9 | R590 | O3 |
| C215 | I6 | C2A9 | J8 | C324 | N6 | C533 | N3 | L501 | M2 | R269 | K4 | R2G9 | I8 | R405 | N8 | R591 | O3 |
| C216 | I6 | C2B0 | J9 | C3F1 | J3 | C534 | N4 | L502 | M2 | R273 | I6 | R2M1 | L7 | R406 | N8 | R592 | L3 |
| C224 | K5 | C2B3 | I8 | C3F2 | J3 | C535 | N4 | L503 | O6 | R274 | I6 | R2M2 | L7 | R407 | N8 | R602 | M1 |
| C225 | K6 | C2B4 | J8 | C3F3 | I2 | C536 | N4 | L504 | O6 | R275 | I6 | R2M3 | L7 | R409 | N8 | R603 | M1 |
| C226 | K6 | C2B5 | J8 | C401 | N8 | C538 | O6 | L505 | N1 | R276 | I7 | R2M5 | L7 | R410 | N8 | R604 | L1 |
| C229 | K6 | C2B8 | I8 | C402 | N8 | C539 | L3 | L506 | M5 | R277 | I6 | R2M6 | L7 | R411 | N8 | R605 | K1 |
| C230 | K7 | C2B9 | I8 | C403 | N9 | C540 | L3 | L507 | M5 | R278 | K6 | R2M7 | L7 | R412 | N9 | R606 | J1 |
| C231 | K7 | C2C1 | K9 | C404 | O8 | C541 | L3 | L508 | L3 | R279 | K6 | R2M8 | L7 | R413 | N9 | R607 | J1 |
| C232 | J7 | C2C2 | K9 | C405 | N7 | C542 | N1 | L509 | L3 | R281 | K5 | R2M9 | L7 | R414 | N8 | R608 | I1 |
| C238 | I6 | C2C4 | K8 | C406 | N7 | C543 | L3 | L510 | K4 | R282 | J7 | R2N0 | L7 | R415 | N8 | R609 | O5 |
| C239 | I6 | C2C5 | K8 | C408 | N7 | C544 | N1 | L511 | O2 | R290 | I5 | R2N1 | L7 | R416 | N8 | R6C1 | O9 |
| C240 | J7 | C2C6 | K8 | C409 | M7 | C546 | O7 | L603 | J3 | R291 | K5 | R2N2 | L7 | R417 | N8 | R6C2 | O9 |
| C242 | I6 | C2C7 | K8 | C410 | N8 | C549 | O4 | PDV01 | N9 | R292 | I6 | R2N3 | L7 | R418 | N8 | R6C3 | O9 |
| C245 | I6 | C2C8 | J8 | C411 | N9 | C550 | O4 | PDV02 | O5 | R2A0 | J9 | R2N4 | L7 | R419 | M8 | R6C4 | N9 |
| C251 | K5 | C2C9 | K8 | C412 | N9 | C551 | O4 | PDV03 | O9 | R2A1 | L9 | R2N5 | L7 | R420 | M8 | R6C5 | O8 |
| C252 | K5 | C2D0 | L8 | C413 | M8 | C552 | O4 | PMD01 | L9 | R2A2 | J9 | R2N6 | M7 | R428 | N6 | R6C6 | N8 |
| C253 | K5 | C2D1 | K9 | C414 | N7 | C553 | O4 | PMD02 | L9 | R2A6 | J8 | R2N7 | M7 | R429 | N7 | R6C7 | N9 |
| C254 | K6 | C2D2 | K8 | C415 | N8 | C554 | O5 | PMD03 | M9 | R2A9 | I8 | R2N8 | M9 | R430 | N6 | SW601 | O1 |
| C255 | K6 | C2D3 | K9 | C416 | N8 | C555 | O5 | Q2A1 | K9 | R2B0 | L8 | R2N9 | M9 | R431 | N7 | SW602 | N1 |
| C258 | K6 | C2D4 | L8 | C417 | N8 | C556 | O5 | Q2A2 | K9 | R2B1 | K9 | R2P0 | M7 | R432 | N7 | SW603 | M1 |
| C260 | J7 | C2D5 | I9 | C418 | M8 | C557 | O5 | Q2A5 | I8 | R2B2 | K8 | R2P1 | M9 | R433 | N6 | SW604 | L1 |
| C261 | K3 | C2D6 | L9 | C419 | M8 | C558 | L4 | Q2A6 | I8 | R2B3 | K8 | R2P2 | M8 | R434 | N6 | SW605 | K1 |
| C262 | I4 | C2D7 | H8 | C420 | M8 | C559 | L2 | Q2M1 | M8 | R2B4 | L8 | R2P3 | M8 | R435 | N7 | SW606 | K1 |
| C263 | K4 | C2D9 | J9 | C421 | M8 | C560 | M2 | Q401 | N7 | R2B5 | K9 | R2P7 | M7 | R436 | N7 | SW607 | J1 |
| C264 | K4 | C2E1 | J9 | C422 | O7 | C561 | N1 | Q402 | M7 | R2B6 | K9 | R2P8 | M8 | R437 | N7 | SW608 | I1 |
| C265 | I4 | C2E2 | J9 | C423 | N8 | D201 | J7 | Q403 | N7 | R2B7 | K9 | R2P9 | M7 | R438 | M7 | TP216 | J7 |
| C272 | K6 | C2E3 | K9 | C424 | O7 | D2A1 | L9 | Q404 | N7 | R2B8 | K9 | R2Q1 | M8 | R439 | N7 | TP245 | K5 |
| C273 | K6 | C2E4 | K9 | C425 | N7 | D2A2 | K9 | Q405 | N7 | R2C0 | I8 | R2R1 | L9 | R440 | N7 | TP268 | I6 |
| C274 | K7 | C2M1 | M8 | C501 | O6 | D2A3 | J8 | Q6C1 | O8 | R2C4 | J8 | R2R2 | L9 | R441 | N7 | TP269 | I6 |
| C277 | J5 | C2M2 | L7 | C502 | L3 | D301 | N6 | Q6C2 | O9 | R2C5 | J8 | R302 | K2 | R501 | N2 | TP2A0 | J7 |
| C278 | I7 | C2M3 | L7 | C503 | L2 | D401 | N7 | Q6C3 | N8 | R2C6 | J9 | R303 | K2 | R502 | L1 | TP343 | K2 |
| C279 | I6 | C2M4 | L7 | C504 | O5 | IC201 | J6 | Q6C4 | N8 | R2C7 | J9 | R306 | K2 | R503 | N3 | TP347 | K2 |
| C280 | I7 | C2M5 | L7 | C506 | M2 | IC203 | J4 | Q6C5 | N9 | R2C8 | J9 | R307 | K2 | R504 | L3 | TP348 | K2 |
| C281 | I6 | C2M6 | M8 | C507 | L2 | IC206 | K5 | R201 | K6 | R2C9 | J9 | R308 | K2 | R505 | L3 | TP349 | K2 |
| C282 | J7 | C2M7 | L8 | C508 | N4 | IC2A1 | J8 | R202 | K8 | R2D0 | I8 | R309 | K3 | R506 | L3 | TP501 | L4 |
| C284 | K8 | C2M8 | L8 | C509 | N4 | IC2A2 | K8 | R203 | K8 | R2D1 | J9 | R310 | K2 | R507 | O5 | TP506 | L3 |
| C285 | I6 | C2M9 | L8 | C510 | N4 | IC2A4 | I9 | R204 | K8 | R2D2 | J9 | R315 | K3 | R508 | O5 | TP509 | O3 |
| C286 | I6 | C2N1 | L7 | C511 | N4 | IC2M1 | L8 | R205 | K5 | R2D3 | J9 | R317 | K3 | R509 | O5 | TP517 | N3 |
| C287 | K7 | C2N3 | M7 | C512 | M4 | IC301 | K2 | R206 | K5 | R2D4 | J9 | R318 | K2 | R510 | O4 | X201 | K5 |
| C288 | K7 | C2N4 | M7 | C513 | M4 | IC305 | M5 | R207 | K5 | R2D5 | J8 | R319 | K2 | R514 | L4 | X501 | L3 |
| C289 | I6 | C301 | K3 | C514 | M4 | IC3F1 | J2 | R217 | I6 | R2D6 | K9 | R320 | K2 | R515 | L4 | | |
| C290 | K5 | C302 | K3 | C515 | M4 | IC401 | N7 | R218 | I6 | R2E6 | J8 | R321 | K2 | R516 | L4 | | |
| C291 | K5 | C303 | J3 | C516 | M4 | IC402 | N8 | R219 | I6 | R2E7 | I8 | R322 | K3 | R520 | L4 | | |
| C292 | K5 | C304 | J2 | C517 | L4 | IC501 | M3 | R220 | I6 | R2E8 | J8 | R323 | K3 | R521 | N2 | | |

## 2. MAIN P.C.BOARD (BOTTOM VIEW)


PDV01
PMD03
PMD01
PMD02
PDV01
1.5.3VA
2.8V
3.GND
4.12V
5.3.3V(M)
6.5V
7.3.3V
8.GND
9.GND
PMD03
1.SPM+
2.SPM-
3.FM+
4.FM-
5.LM-
6.LM+
7.OPEN
8.CLOSE
9.GND
10.LEAD IN
11.GND
PMD02
1.VCC
2.RF
3.DVD LD
4.DVD PD
5.VOL(DVD)
6.GND
7.VC INPUT
8.VCC
9.F
10.E
11.A
12.D
13.C
14.B
15.F+
16.T-
17.T+
18.F-
19.PICK SEL
20.GND
21.CD LD
22.CD PD
23.VOL(CD)
PDV02
PDV02
1.S/COMP SW
2.COAXIAL
3.OPTICAL
4.GND
5.GND
6.KEY RTN
7.MRESET
8.FLD CS
9.DVD CLK
10.DVD DATA
11.VCR ATA
12.GND
X201
X501
SW601
SW602
SW603
SW604
SW605
SW606
SW607
SW608
6870R9241AB
2002.11.28
9
8
7
6
5
4
3
2
1
A
B
C
D
E
F
G

### LOCATION GUIDE

| | | | |
|---|---|---|---|
| TP201 | G5 | TP324 | G2 |
| TP202 | E5 | TP325 | G2 |
| TP205 | F6 | TP326 | G2 |
| TP206 | E6 | TP327 | G2 |
| TP212 | F6 | TP328 | G2 |
| TP213 | F6 | TP329 | F2 |
| TP214 | E7 | TP330 | F2 |
| TP215 | F6 | TP331 | F2 |
| TP233 | D6 | TP332 | F2 |
| TP234 | D6 | TP333 | F2 |
| TP240 | E5 | TP334 | F2 |
| TP241 | F6 | TP335 | F2 |
| TP260 | E7 | TP336 | F2 |
| TP261 | G5 | TP337 | F2 |
| TP264 | F6 | TP338 | F2 |
| TP265 | F6 | TP339 | F2 |
| TP267 | D6 | TP340 | F2 |
| TP270 | D6 | TP341 | F2 |
| TP2A1 | E8 | TP342 | F3 |
| TP2A2 | E8 | TP344 | E2 |
| TP2A3 | E8 | TP345 | E2 |
| TP2A4 | E8 | TP346 | E2 |
| TP2A5 | G8 | TP365 | F2 |
| TP2A6 | F8 | TP366 | E2 |
| TP2A7 | E7 | TP367 | F2 |
| TP2A8 | F7 | TP369 | E2 |
| TP2A9 | F7 | TP370 | E2 |
| TP2T0 | F5 | TP510 | F2 |
| TP2T1 | F5 | TP511 | E2 |
| TP2T2 | E4 | TP512 | E2 |
| TP2T3 | F5 | TP513 | B3 |
| TP301 | E2 | TP518 | E4 |
| TP303 | F3 | TP519 | B3 |
| TP304 | G3 | TP520 | E2 |
| TP305 | F3 | TP522 | D2 |
| TP306 | E3 | TP523 | D1 |
| TP307 | F3 | TP524 | C1 |
| TP308 | E3 | TP525 | G5 |
| TP309 | F3 | TP526 | B3 |
| TP310 | E3 | TP527 | G5 |
| TP311 | F3 | TP528 | G5 |
| TP312 | F3 | TP529 | B3 |
| TP313 | F3 | TP530 | B4 |
| TP314 | F2 | TP531 | B4 |
| TP315 | E3 | TP532 | B4 |
| TP316 | F3 | TP533 | B4 |
| TP317 | F3 | TP534 | B4 |
| TP318 | F3 | TP535 | B4 |
| TP319 | G3 | TP536 | B4 |
| TP320 | F2 | TP540 | C1 |
| TP322 | G3 | TP541 | C1 |
| TP323 | G2 | | |

# SECTION 4 MECHANISM OF VCR PART

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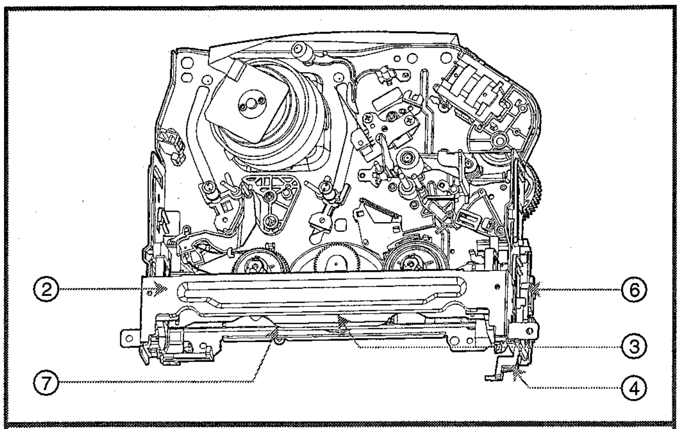
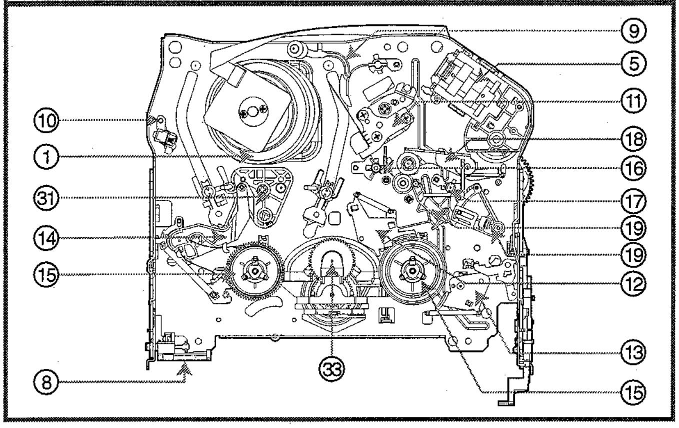
# DECK MECHANISM PARTS LOCATIONS

## • Top View

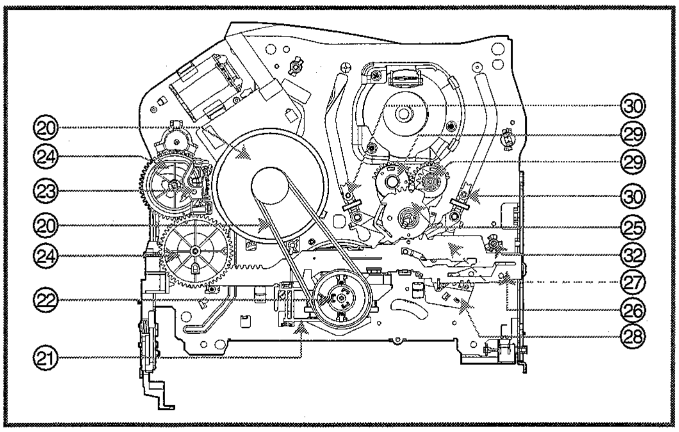




| Starting No. | Procedure | Part | Fixing Type | Fig-ure | Vi-ew |
|---|---|---|---|---|---|
|  | 1 | Drum Assembly | 3 Screw | A-1 | T |
|  | 2 | Plate Top | 2 Hook | A-2 | T |
| 2 | 3 | Holder Assembly CST | Chassis Hole | A-2 | T |
| 2 | 4 | Opener Door | Chassis Hole | A-2 | T |
|  | 5 | Bracket Assembly L/D Motor | 3 Hook | A-2 | T |
| 2,3,4 | 6 | Gear Assembly Rack F/L | 1 Hook, Chassis Hole | A-2 | T |
| 2,3,4,6 | 7 | Arm Assembly F/L | Chassis Hole | A-2 | T |
|  | 8 | Lever Assembly S/W | 1 Hook | A-2 | T |
|  | 9 | Arm Assembly Cleaner | Chassis Embossing | A-3 | T |
|  | 10 | Head F/E | Chassis Embossing | A-3 | T |
|  | 11 | Base Assembly A/C Head | 1 Screw | A-3 | T |
| 2,3 | 12 | Brake Assembly T | 1 Hook | A-4 | T |
| 2,3 | 13 | Brake Assembly RS | 1 Hook | A-4 | T |
| 2,3 | 14 | Arm Assembly Tension | 2 Hook | A-4 | T |
| 2,3,12,13, 14 | 15 | Reel S/Reel T |  | A-4 | T |
|  | 16 | Base Assembly P4 | Chassis Embossing | A-5 | T |
|  | 17 | Opener Lid | Chassis Embossing | A-5 | T |
| 17 | 18 | Arm Assembly Pinch | Shaft | A-5 | T |
| 17 | 19 | Lever T/Up / Arm T/Up | 1 Hook | A-5 | T |
| 17,18 | 20 | Belt Capstan/Motor Capstan | 3 Screw | A-6 | B |
|  | 21 | Lever F/R | Locking Tab | A-6 | B |
| 20, 21 | 22 | Clutch Assembly D35 | Washer | A-6 | B |
|  | 23 | Brake Assembly Capstan | Locking Tab | A-6 | B |
|  | 24 | Gear Drive/Gear Cam | Washer/Hook | A-7 | B |
|  | 25 | Gear Sector | 1 Hook | A-7 | B |
| 20,21,23, 24,25 | 26 | Plate Slider | Shaft Guide | A-7 | B |
| 20,21,23, 24,25,26 | 27 | Lever Tension | 1 Hook | A-7 | B |
| 2,3,14,20, 21,25,23, 24,26 | 28 | Lever Spring | Locking Tab | A7 | B |
| 25 | 29 | Gear Assembly P2/Gear Assembly P3 | Boss | A-8 | B |
| 2,3,14,25, 29 | 30 | Base Assembly P2/Base Assembly P3 | Chassis Slot | A-8 | B |
| 2,3,14,25, 29 | 31 | Base Loading | 1 Screw | A-9 | T |
| 2,3,14 | 32 | Base Tension | Chassis Embossing | A-9 | B |
| 2,3,20,21, 22 | 33 | Arm Assembly Idler | Locking Tab | A-9 | T |

T:Top, B:Bottom

## • Bottom View



**NOTE : When reassembly perform the procedure in the reverse order.**

1) When reassembling, confirm Mechanism and Mode Switch Alignment Position (Refer to Page 4-13)
2) When disassembling, the Parts for Starting No. Should be removed first.

# DECK MECHANISM DISASSEMBLY

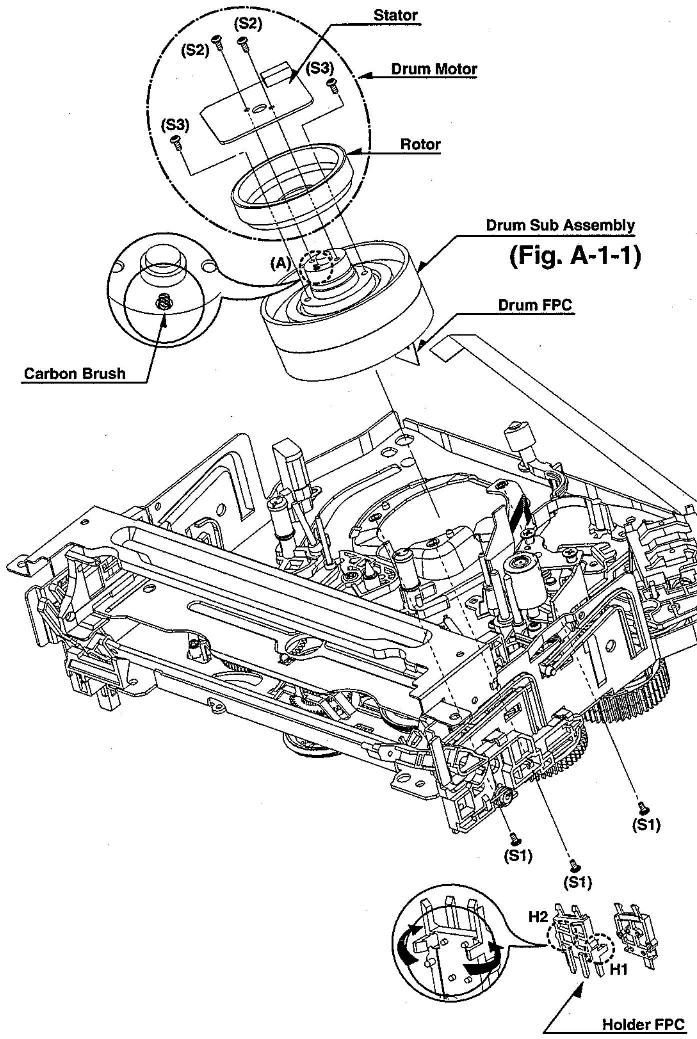

Stator
(S2)
(S2)
(S3)
Drum Motor
(S3)
Rotor
Drum Sub Assembly
(Fig. A-1-1)
(A)
Drum FPC
Carbon Brush
(S1)
(S1)
(S1)
H2
H1
Holder FPC

Fig. A-1

## 1. Drum Assembly (Fig. A-1-1)

1) Unplug the Drum FPC Connector.
2) Remove three Screws(S1) on bottom side and separate the Drum assembly.
3) Unhook (H1), (H2) and separate the Holder FPC and Cap FPC.

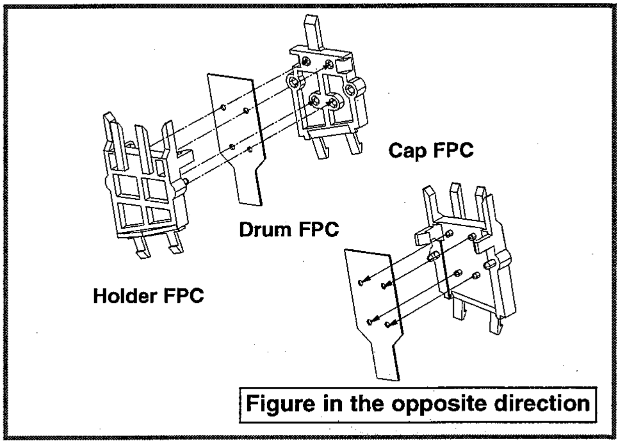
### 1-1. Drum Motor

1) Remove two Screws(S2) and disassemble the Stator of the Drum Motor.
2) Remove two Screws(S3) and separate the Rotor of the Drum Motor from the Drum Sub assembly.

**NOTE**

When reassembling, confirm (A) portion of the Drum Sub assembly whether the Carbon Brush is in there or not.

(Fig. B-1)


Cap FPC
Drum FPC
Holder FPC
Figure in the opposite direction

# DECK MECHANISM DISASSEMBLY

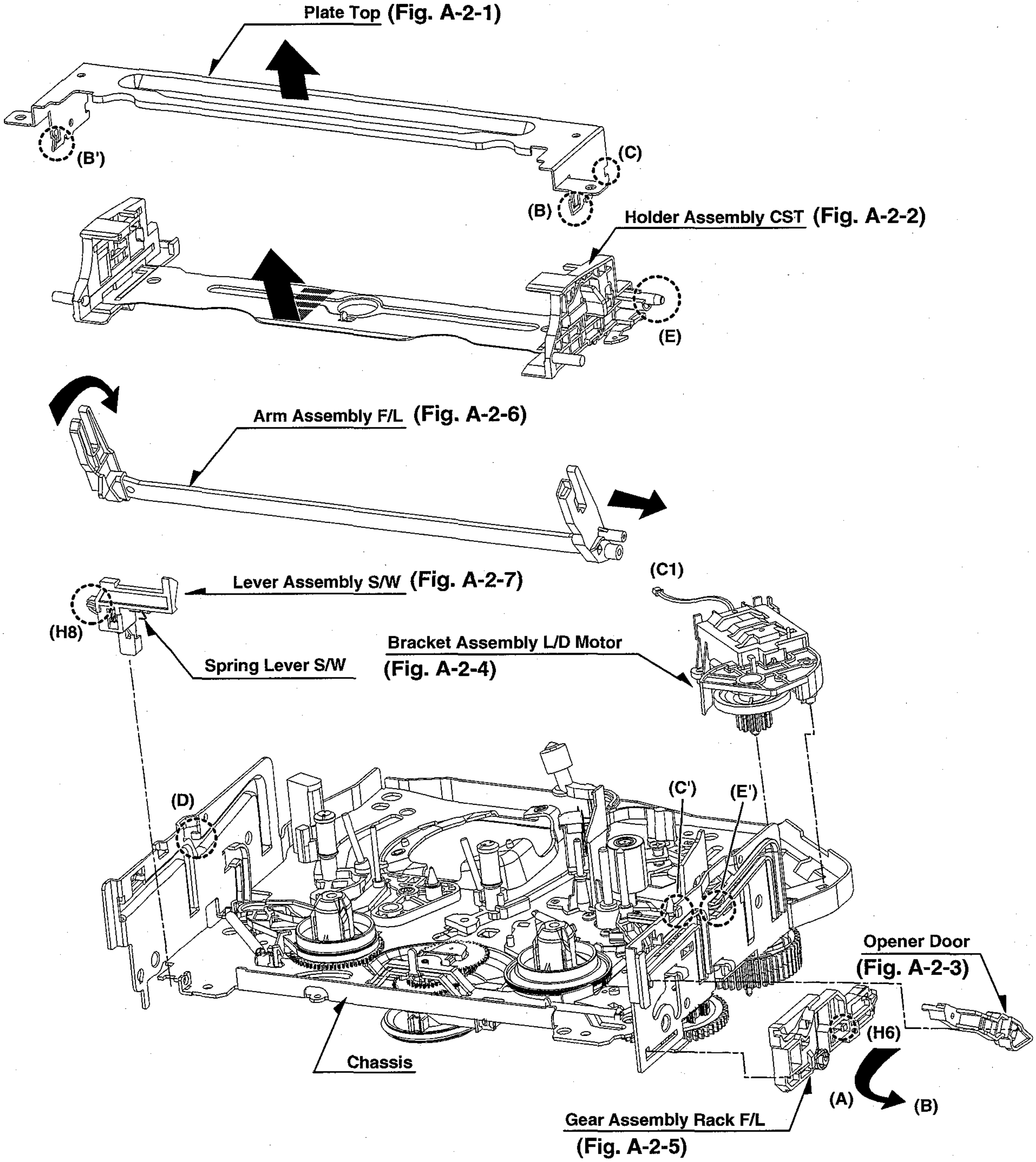


Plate Top (Fig. A-2-1)
(B')
(C)
(B)
Holder Assembly CST (Fig. A-2-2)
(E)
Arm Assembly F/L (Fig. A-2-6)
(C1)
Lever Assembly S/W (Fig. A-2-7)
(H8)
Bracket Assembly L/D Motor
(Fig. A-2-4)
Spring Lever S/W
(D)
(C')
(E')
Opener Door
(Fig. A-2-3)
(H6)
Chassis
(A)
(B)
Gear Assembly Rack F/L
(Fig. A-2-5)

Fig. A-2

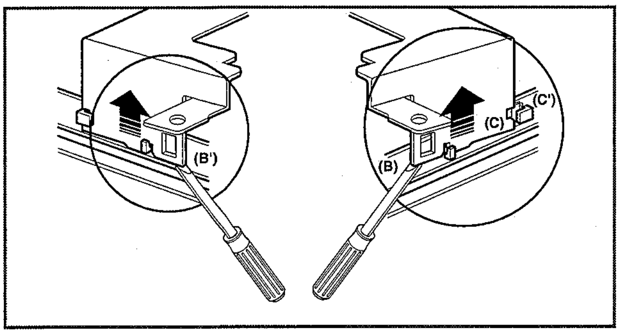
# DECK MECHANISM DISASSEMBLY

## 2. Plate Top (Fig. A-2-1)

1) Pull the (B) portion of the Plate Top back in direction of arrow and separate the right side of it.
2) pull the (B') portion of the Plate Top back in direction of arrow and separate the left side of it.
(Used tools : (-) type driver, anything tool with sharp point or flat point.)

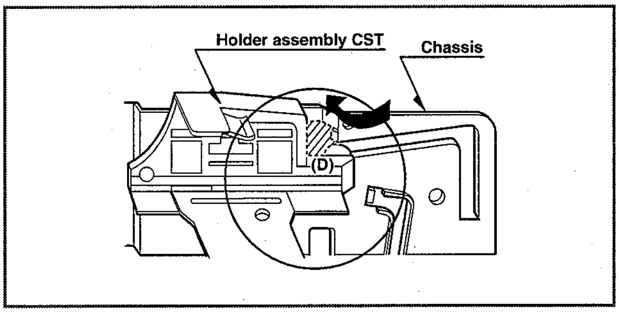
### NOTE

(1) When reassembling, push the Plate Top after alignment the two position(C), (C') as below Fig.



## 3. Holder Assembly CST (Fig.A-2-2)

1) Move the Holder Assembly CST in direction of arrow and separate the left side of it first through the (D) position of the Chassis.



2) Disassemble the right side of the Holder Assembly CST from each guided hole of the Chassis.

### NOTE

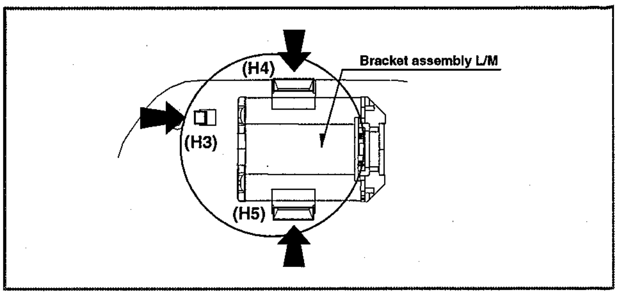
When reassembling, insert the (E) part of the Holder Assembly CST in the (E') hole of the Chassis first and assemble the left side of it.

## 4. Opener Door (Figure. A-2-3)

1) Turn the Opener Door clockwise and remove it through the guide hole of the Chassis.

## 5. Bracket Assembly L/D Motor (Fig. A-2-4)

1) Unplug the Connector(C1).
2) Unhook three Hooks(H3, H4, H5) on bottom side of the Chassis, lift up the Bracket Assembly L/M and disassemble the Bracket Assembly L/D Motor.

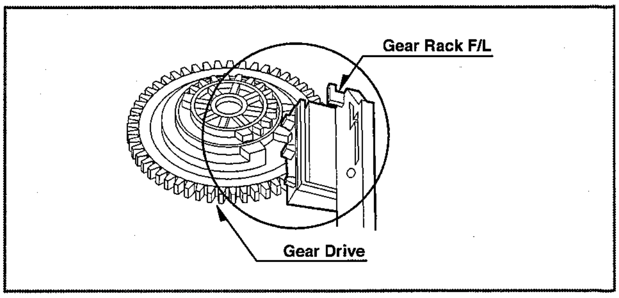


## 6. Gear Assembly Rack F/L (Fig. A-2-5)

1) Move the Gear Assembly Rack F/L in direction of arrow(A) and unhook the Hook(H6) pulling back in front.
2) Separate the Gear Rack F/L in direction of arrow(B).

### NOTE

When reassembling, align the gear part of the Gear Assembly Rack F/L with the Gear Drive as below Fig.

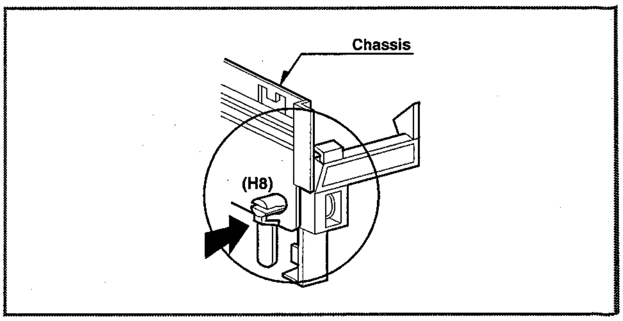


## 7. Arm Assembly F/L (Fig. A-2-6)

1) Move the Arm Assembly F/L in direction of arrow and separate the left side of it first.
2) Disassemble the Arm Assembly F/L from each guided hole of the Chassis.

## 8. Lever Assembly S/W(Fig. A-2-7)

1) Unhook the Hook(H8) in the left side of the Chassis and remove the Lever Assembly S/W.



# DECK MECHANISM DISASSEMBLY

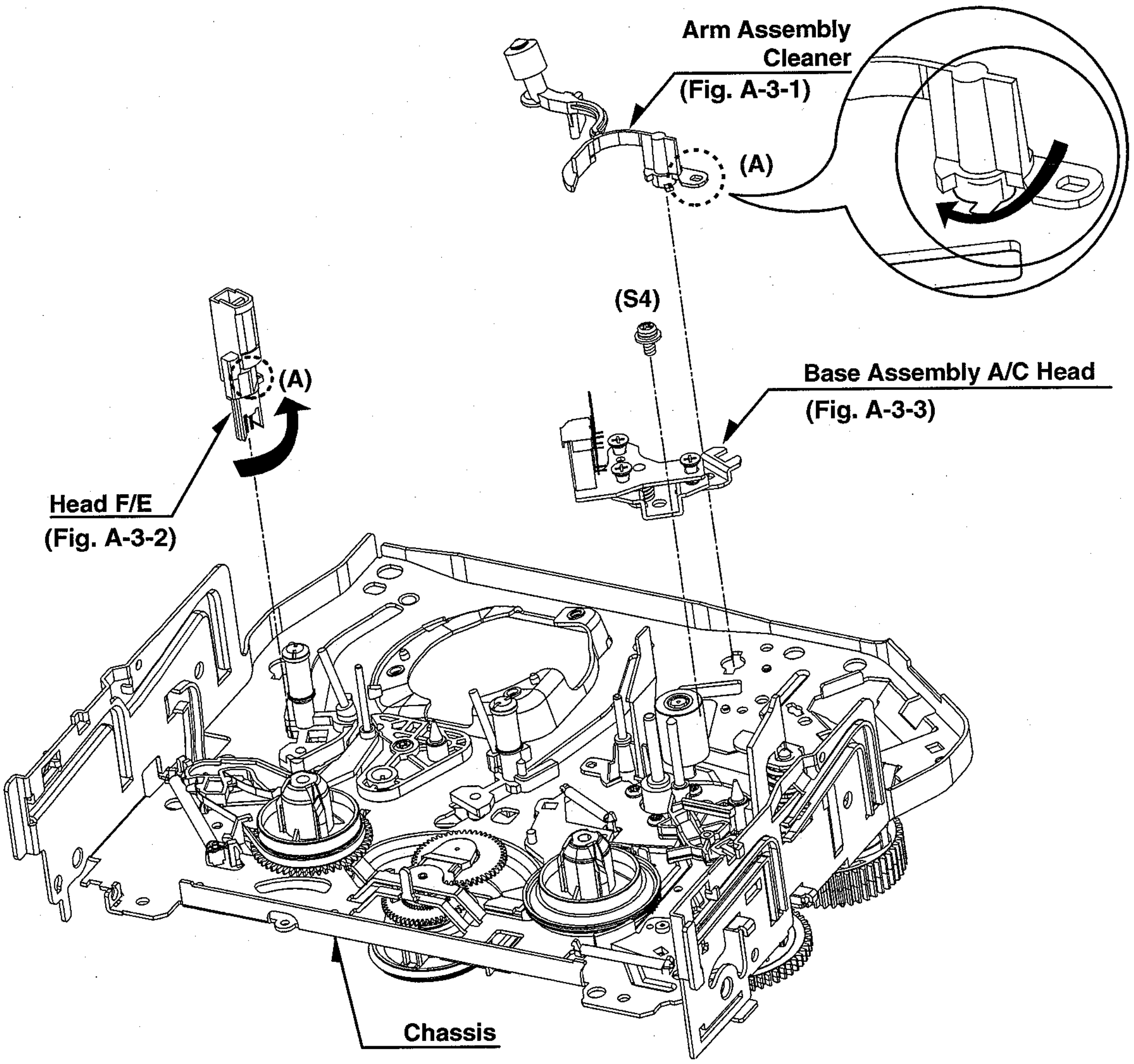

Arm Assembly
Cleaner
(Fig. A-3-1)
(A)
(S4)
Base Assembly A/C Head
(Fig. A-3-3)
(A)
Head F/E
(Fig. A-3-2)
Chassis

Fig. A-3

## 9. Arm Assembly Cleaner (Fig. A-3-1)

1) Breakaway the (A) portion as Fig. A-3-1 from the embossing of the Chassis, turn the Arm assembly Cleaner to clockwise direction and lift it up.

## 10. Head F/E (Fig. A-3-2)

1) Breakaway the (A) portion of the Head F/E from the embossing of the Chassis, turn it to counterclockwise direction and lift it up.

## 11. Base Assembly A/C Head (Fig. A-3-3)

1) Remove the Screw(S4) and lift the Base Assembly A/C Head up.

# DECK MECHANISM DISASSEMBLY

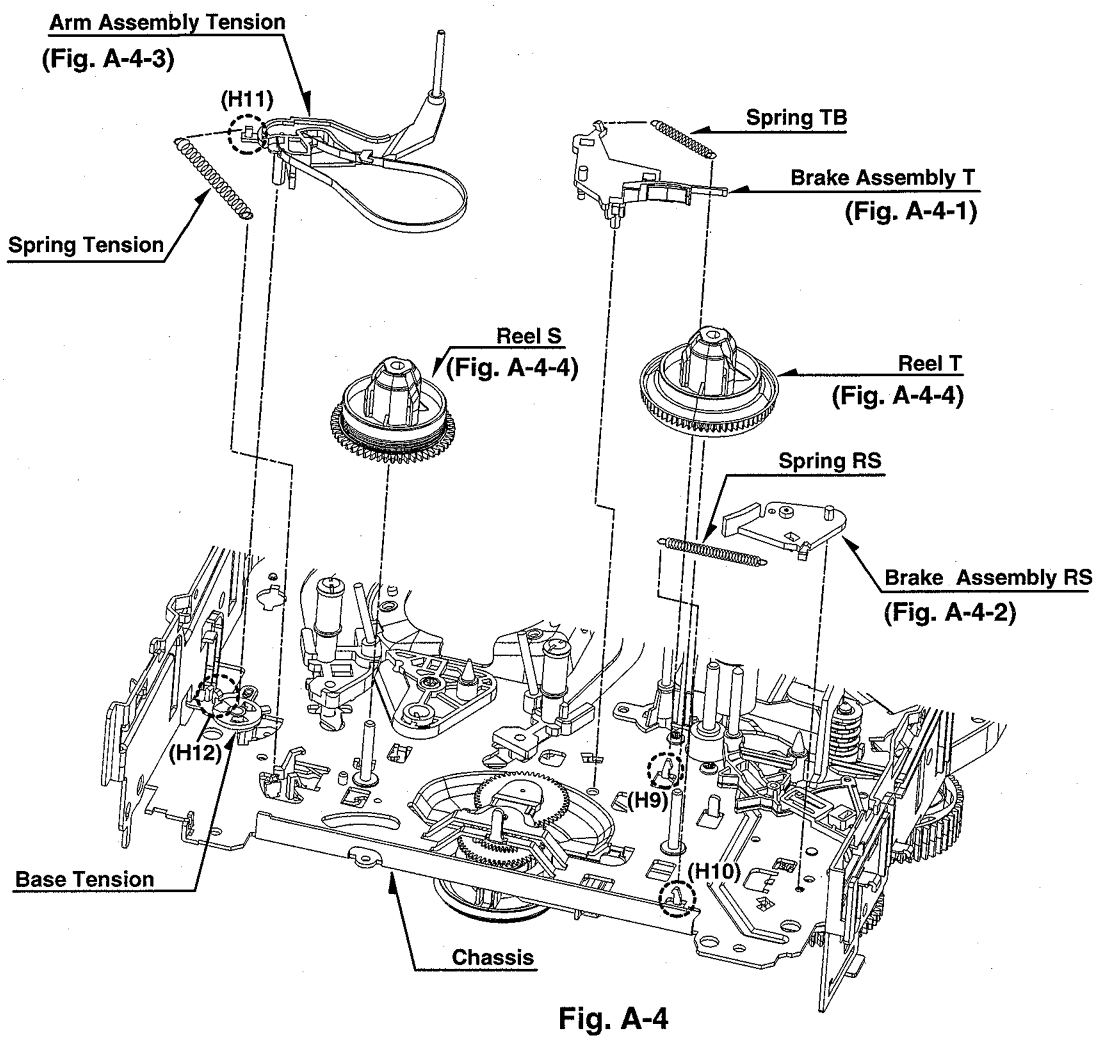

Arm Assembly Tension
(Fig. A-4-3)
(H11)
Spring TB
Brake Assembly T
(Fig. A-4-1)
Spring Tension
Reel S
(Fig. A-4-4)
Reel T
(Fig. A-4-4)
Spring RS
Brake Assembly RS
(Fig. A-4-2)
(H12)
(H9)
(H10)
Base Tension
Chassis

Fig. A-4

## 12. Brake Assembly T (Fig. A-4-1)

1) Unhook the Spring TB from the Hook(H9) of the Chassis.
2) Lift the Brake Assembly T up.

## 13. Brake Assembly RS (Fig. A-4-2)

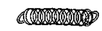
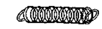
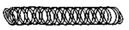
1) Unhook the Spring RS from the Hook(H10) of the Chassis.
2) Lift the Brake Assembly T up.

## 14. Arm Assembly Tension (Fig. A-4-3)

1) Unhook the Spring Tension from the Hook(H11) of the Arm Assembly Tension.
2) Unhook the Hook(H12) of the Base Tension and lift the Arm Assembly Tension up.

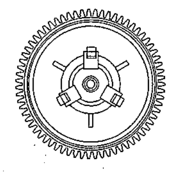
**NOTE**

**Difference for Springs**

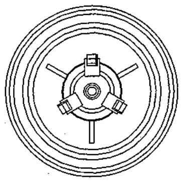
| | |
|---|---|
|  | **Spring TB** |
|  | **Spring RS** **Color (Black)** |
|  | **Spring Tension** |

## 15. Reel S / Reel T (Fig. A-4-4)

1) Difference for Reel S / Reel T



**Reel S**



**Reel T**

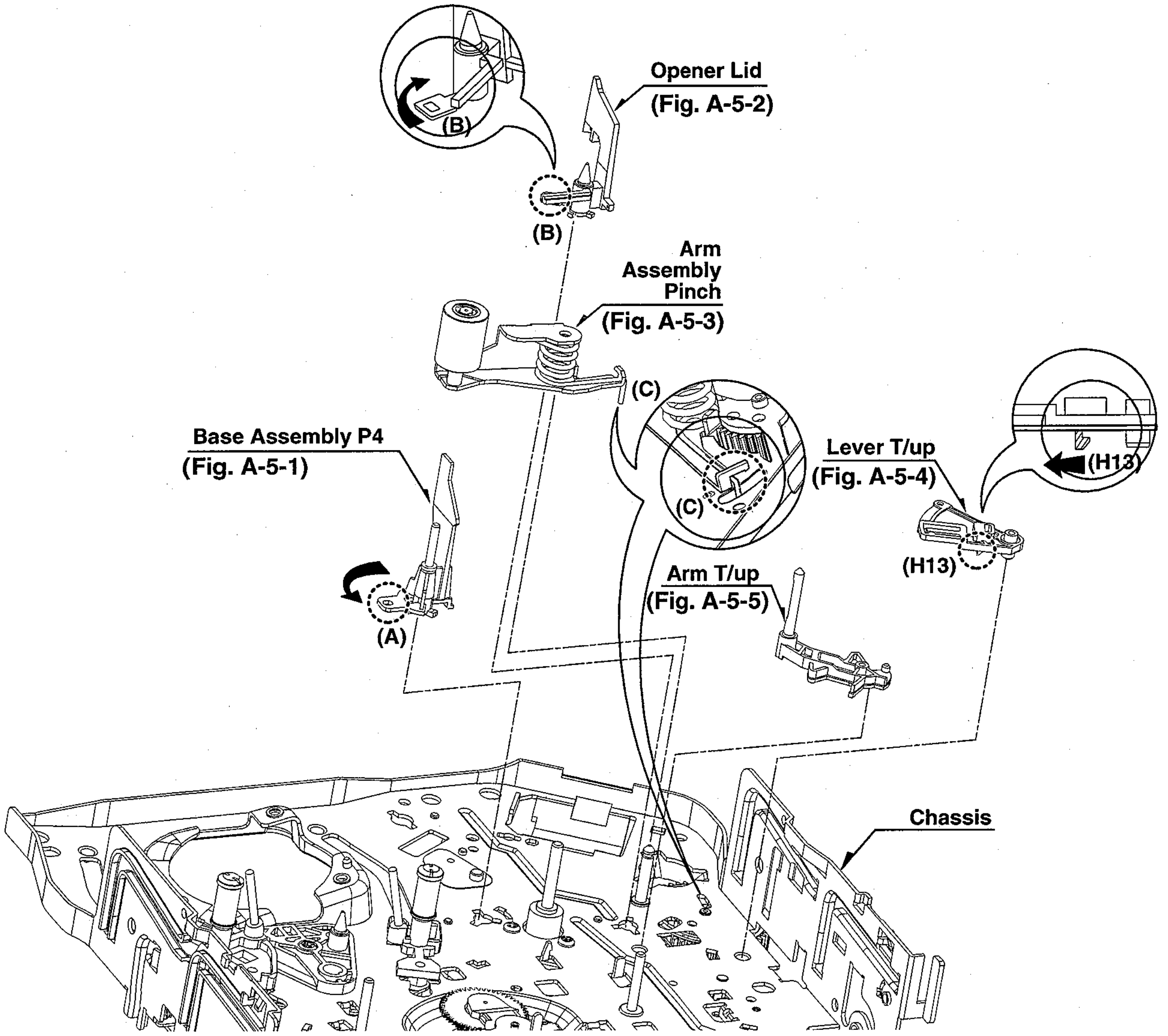

Opener Lid
(Fig. A-5-2)
(B)
(B)
Arm
Assembly
Pinch
(Fig. A-5-3)
(C)
Base Assembly P4
(Fig. A-5-1)
(C)
Lever T/up
(Fig. A-5-4)
(H13)
(H13)
Arm T/up
(Fig. A-5-5)
(A)
Chassis

Fig. A-5

## 16. Base Assembly P4 (Fig. A-5-1)

1) Breakaway the (A) portion of the Base Assembly P4 from the embossing of the Chassis.
2) Turn the Base Assembly P4 to counterclockwise direction and lift it up.

## 17. Opener Lid (Fig. A-5-2)

1) Breakaway the (B) portion of the Opener Lid from the embossing of the Chassis.
2) Turn the Opener Lid to clockwise direction and lift it up.

## 18. Arm Assembly Pinch (Fig. A-5-3)

1) Lift the Arm Assembly Pinch up.

**NOTE**

When reassembling, confirm the (C) portion of the Arm Assembly Pinch is inserted to the Chassis hole correctly as Fig.

## 19. Lever T/up (Fig. A-5-4)/ Arm T/up (Fig. A-5-5)

1) Unhook the Hook(H13) of the bottom Chassis and lift the Lever T/up up.
2) Lift the Arm T/up up.

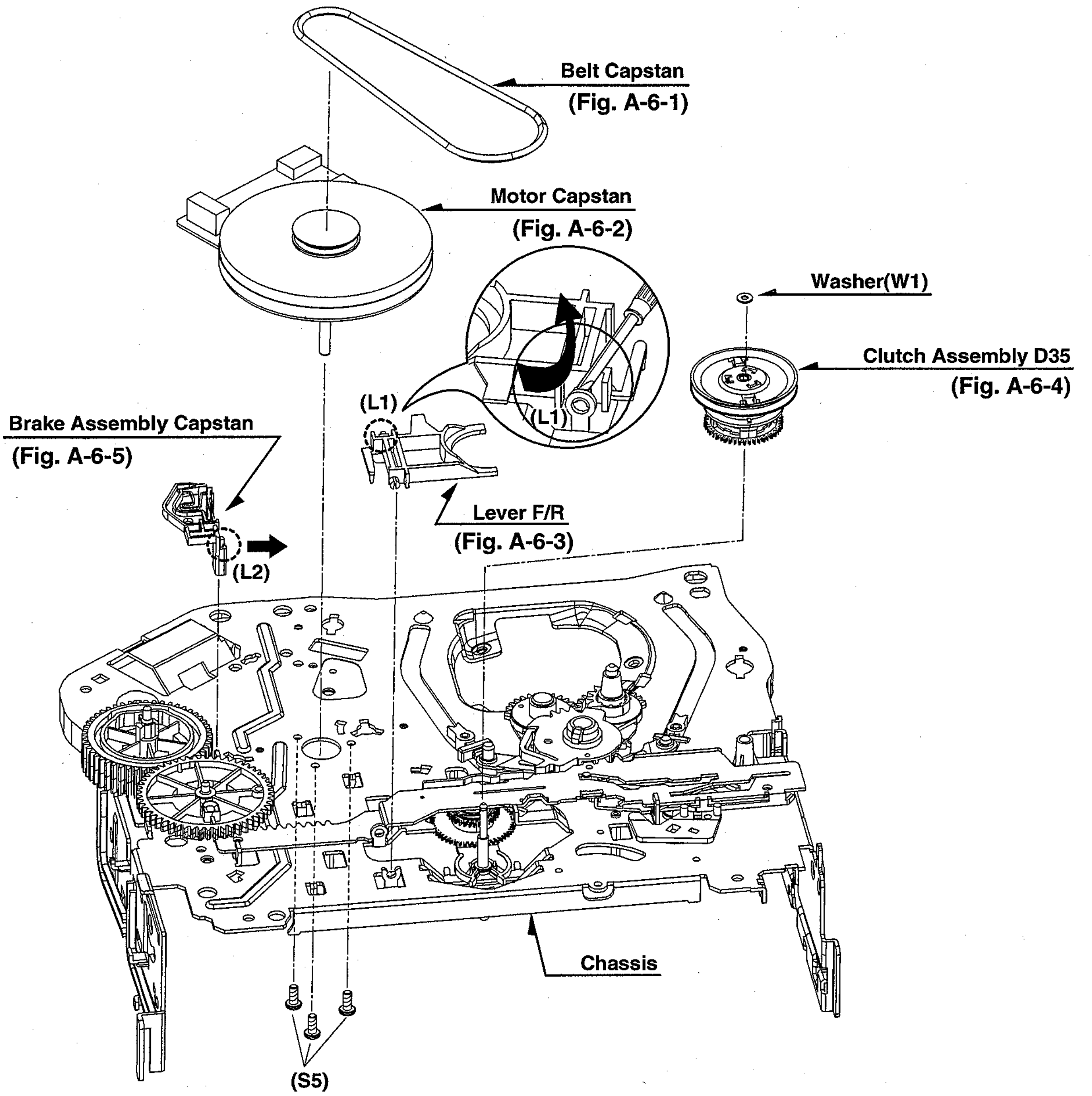

Belt Capstan
(Fig. A-6-1)
Motor Capstan
(Fig. A-6-2)
Washer(W1)
Clutch Assembly D35
(Fig. A-6-4)
(L1)
(L1)
Brake Assembly Capstan
(Fig. A-6-5)
Lever F/R
(Fig. A-6-3)
(L2)
Chassis
(S5)

Fig. A-6

## 20. Belt Capstan (Fig. A-6-1)/ Motor Capstan (Fig. A-6-2)

1) Remove the Belt Capstan.
2) Remove the three Screws(S5) on bottom Chassis and lift the Motor Capstan up.

## 21. Lever F/R (Fig. A-6-3)

1) Unlock the Locking Tab(L1) as Fig. A-6-3 and lift the Lever F/R up.

## 22. Clutch Assembly D35 (Fig. A-6-4)

1) Remove the Washer(W1) and lift the Clutch Assembly D35 up.

## 23. Brake Assembly Capstan (Fig. A-6-5)

1) Pull the Locking Tab(L2) back in direction of arrow and lift it up.

# DECK MECHANISM DISASSEMBLY

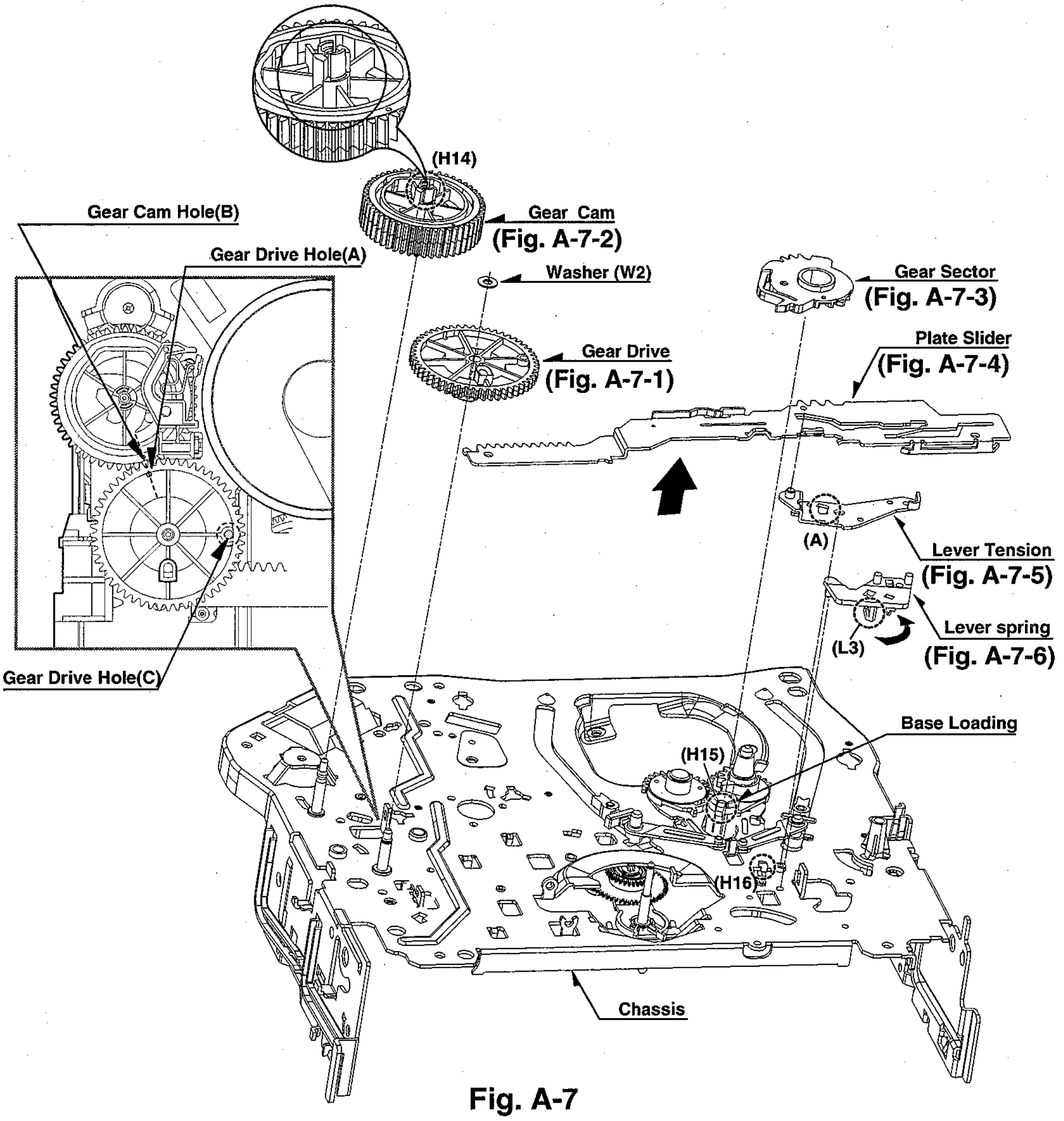

(H14)
Gear Cam Hole(B)
Gear Drive Hole(A)
Gear Cam
(Fig. A-7-2)
Washer (W2)
Gear Sector
(Fig. A-7-3)
Plate Slider
(Fig. A-7-4)
Gear Drive
(Fig. A-7-1)
(A)
Lever Tension
(Fig. A-7-5)
Lever spring
(L3)
(Fig. A-7-6)
Gear Drive Hole(C)
Base Loading
(H15)
(H16)
Chassis

Fig. A-7

## 24. Gear Drive (Fig. A-7-1)/ Gear Cam (Fig. A-7-2)

1) Remove the Washer(W2) and lift the Gear Drive up.
2) Unhook the Hook(H14) of the Gear Cam and lift the Gear Cam up.

### NOTE

When reassembling, align the Gear Drive Hole(A) and the Gear Cam Hole(B) in a straight line after the Gear Drive Hole(C) is aligned with the Chassis Hole as Fig.

## 25. Gear Sector (Fig. A-7-3)

1) Unhook the Hook(H15) of the Base Loading on bottom Chassis and lift the Gear Sector up.

## 26. Plate Slider (Fig. A-7-4)

1) Just lift the Plate Slider up.

## 27. Lever Tension (Fig. A-7-5)

1) Unhook the (A) portion of the Lever Tension from the Hook(H16) of the Chassis.
2) Turn the Lever Tension to counterclockwise direction and lift it up.

## 28. Lever Spring (Fig. A-7-6)

1) Unlock the Locking Tab(L3) of the bottom Chassis and lift the Lever Spring up.

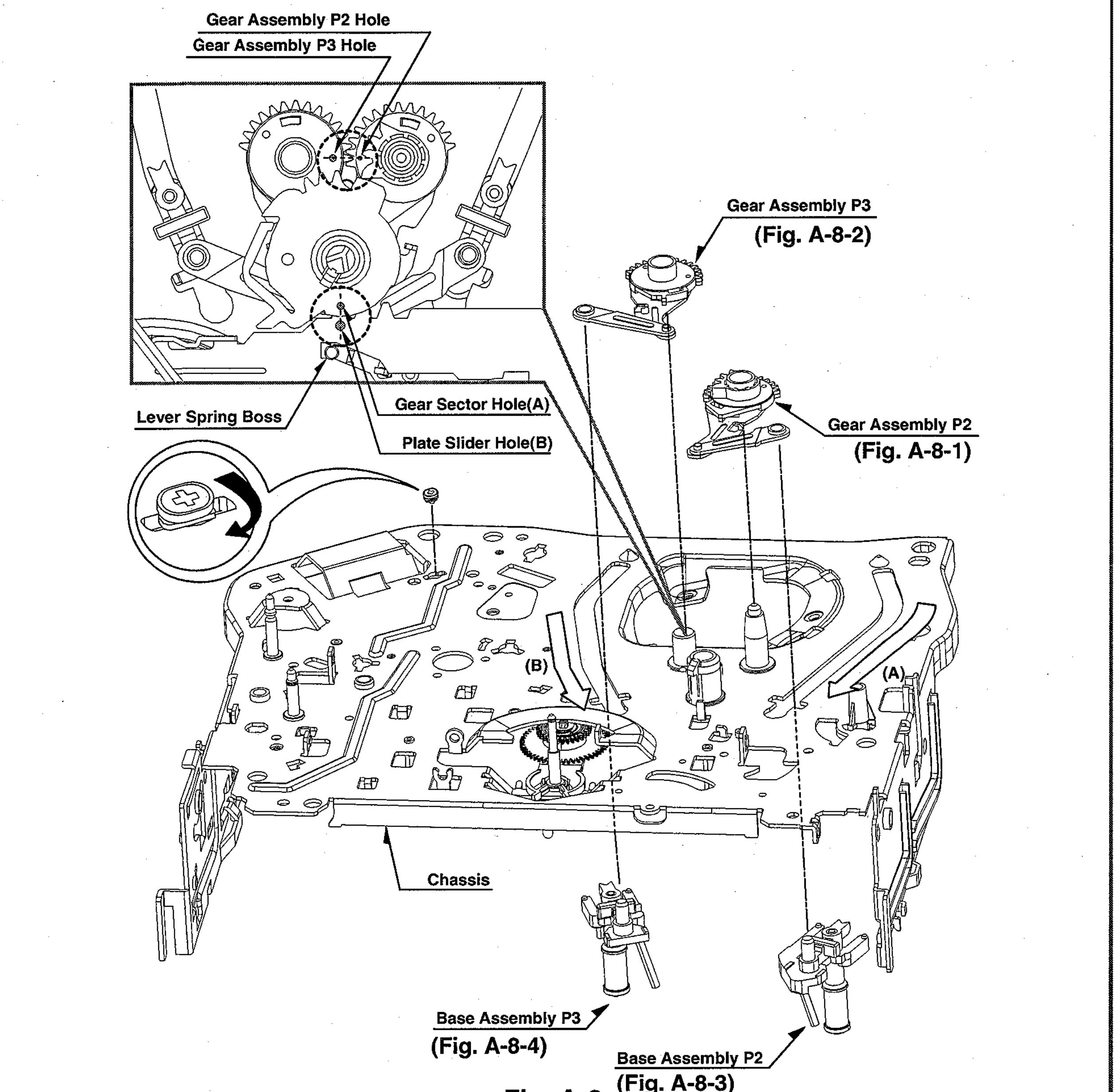

Gear Assembly P2 Hole
Gear Assembly P3 Hole
Gear Assembly P3
(Fig. A-8-2)
Gear Sector Hole(A)
Plate Slider Hole(B)
Lever Spring Boss
Gear Assembly P2
(Fig. A-8-1)
(B)
(A)
Chassis
Base Assembly P3
(Fig. A-8-4)
Base Assembly P2
(Fig. A-8-3)

Fig. A-8

## 29. Gear Assembly P2 (Fig. A-8-1)/ Gear Assembly P3 (Fig. A-8-2)

1) Just lift the Gear Assembly P2 up.
2) Just lift the Gear Assembly P3 up.

### NOTE

When reassembling, align the two holes of the Gear Assembly P2 and P3 in a straight line after confirmation whether the Gear Sector Hole(A) and the Plate Slider Hole(B) are aligned or not as Fig.

## 30. Base Assembly P2 (Fig. A-8-3)/ Base Assembly P3 (Fig. A-8-4)

1) Move the Base Assembly P2 in direction of arrow(A) along the guide hole of the Chassis and disassemble it on bottom side.
2) Move the Base Assembly P3 in direction of arrow(B) along the guide hole of the Chassis and disassemble it on bottom side.

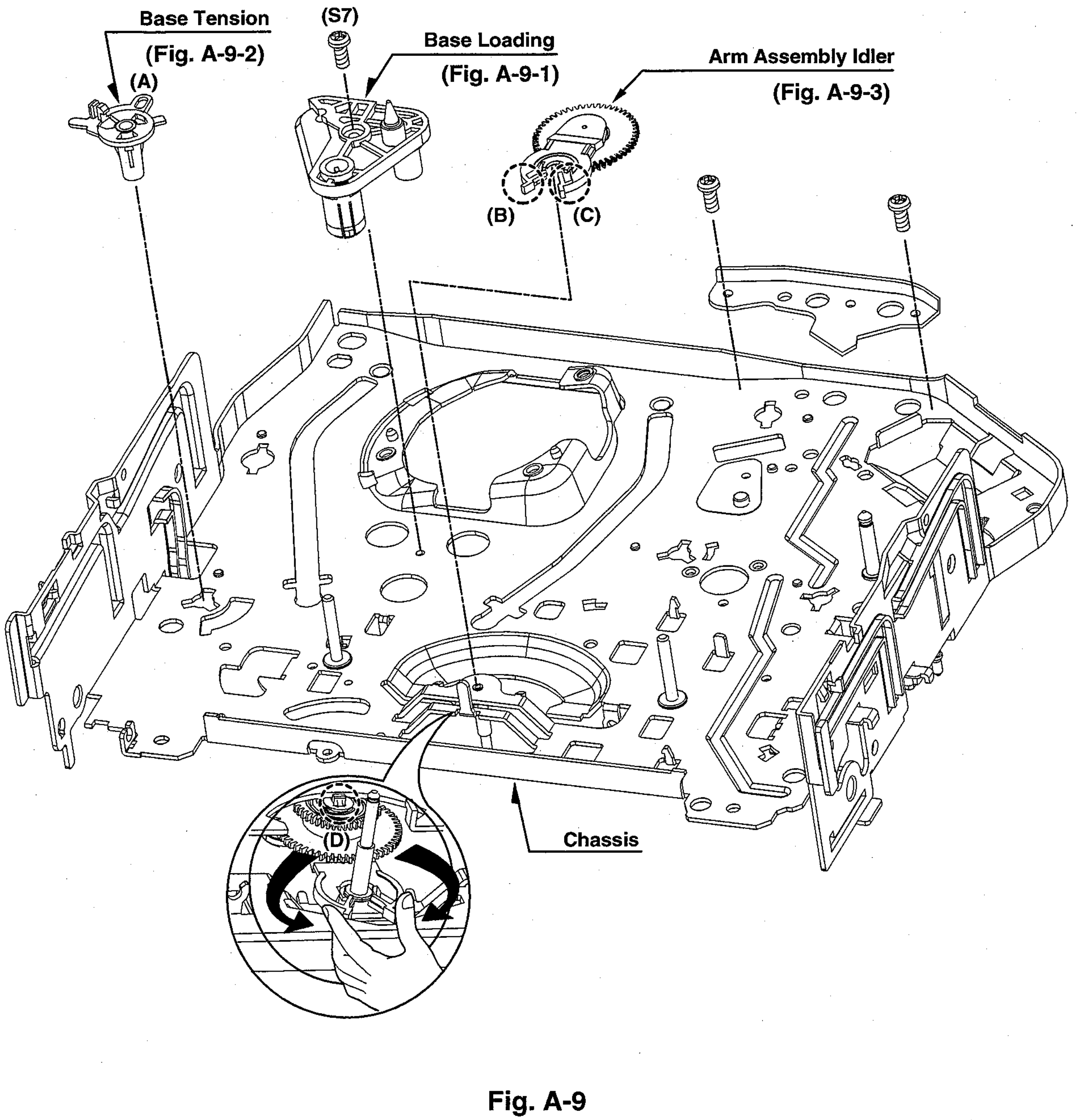

Base Tension
(Fig. A-9-2)
(A)
(S7)
Base Loading
(Fig. A-9-1)
Arm Assembly Idler
(Fig. A-9-3)
(B)
(C)
(D)
Chassis

Fig. A-9

## 31. Base Loading (Fig. A-9-1)

1) Remove the Screw(S7).
2) Lift the Base Loading up.

## 32. Base Tension (Fig. A-9-2)

1) Breakaway the (A) portion of the Base Tension from the embossing of the Chassis.
2) Turn the Base Tension to counterclockwise direction and lift it up.

## 33. Arm Assembly Idler (Fig. A-9-3)

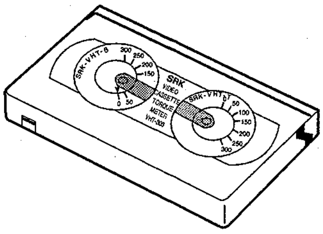
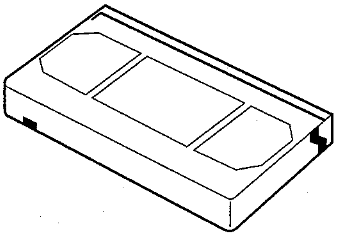
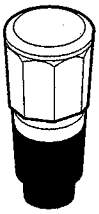
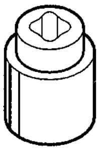
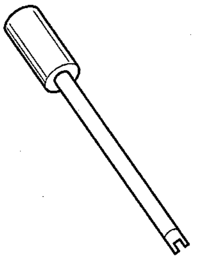
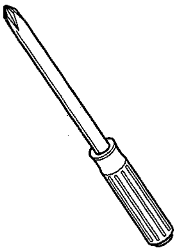
1) Make narrower the two parts, (B) and (C), as Fig. A-9-3.
2) Lift the Arm assembly Idler up.

**NOTE**

When disassembling, be careful not to be caught the (D) part by the Chassis as Fig.

# DECK MECHANISM ADJUSTMENT

## • Tools and Fixfures for Service

| | | |
|---|---|---|
| 1. Cassette Torque Meter<br>SRK-VHT-303(Not SVC part)<br>Parts No: D00-D006<br> SRK-VHT-8<br>SRK<br>VIDEO<br>CASSETTE<br>TORQUE<br>METER<br>VHT-303<br>SRK-VHT-T<br>0<br>50<br>100<br>150<br>200<br>250<br>300 | 2. Alignment Tape<br>Parts No NTSC: DTN-001<br>PAL:DTN-0002<br> | 3. Torque Gauge<br>600g.Cm ATG<br>Parts No:D00-D002<br> |
| 4. Torque Gauge Adaptor<br>Parts No:D09-R001<br> | 5. Post Height Adjusting Driver<br>Parts No:DTL-0005<br> | 6. + Type Driver (ø 5)<br> |

# DECK MECHANISM ADJUSTMENT

## 1. Mechanism Alignment Position Check

**Purpose:To determine if the Mechanism is in the correct position, when a Tape is ejected.**

| Test Equipment/ Fixture | Test Conditions (Mechanism Condition) | Check Point |
|---|---|---|
| • Blank tape | • Eject Mode (with Cassette ejected) | • Mechanism and Mode Switch Position |

1) Turn the Power S/W on and eject the Cassette by pressing the Eject Button.
2) Remove the Top Cover and Plate Assembly Top, visually check if the Gear Cam Hole is aligned with the Chassis Hole as below Fig. C-2.
3) IF not, rotate the Shaft of the Loading Motor to either clockwise or counterclockwise until the alignment is as below Fig. C-2.
4) Remove the Screw which fixes the Deck Mechanism and Main Frame and confirm if the Gear Cam is aligned with the Gear Drive as below Fig. C-1(A).
5) Confirm if the Mode S/W on the Main P.C.Board is aligned as below Fig. C-1(B).
6) Remount the Deck Mechanism on the Main P.C.Board and check each operation.

**CHECK DIAGRAM**

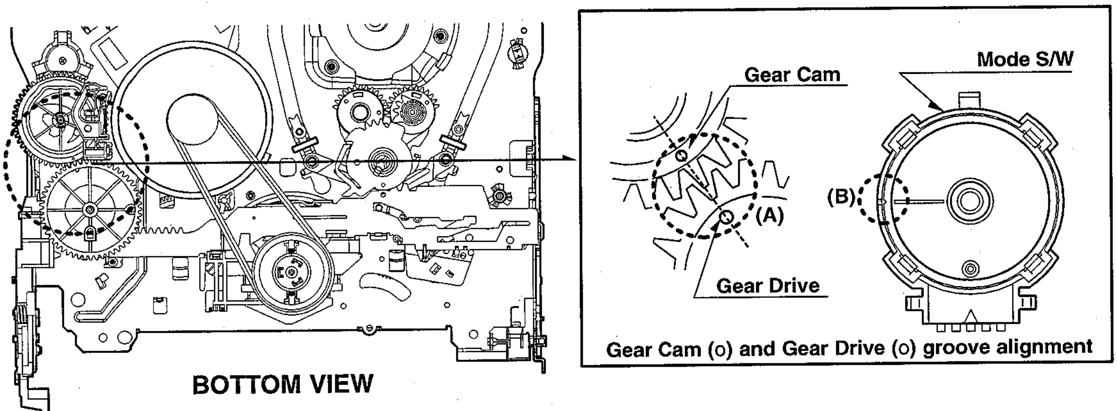

BOTTOM VIEW
Gear Cam
Mode S/W
(B)
(A)
Gear Drive
Gear Cam (o) and Gear Drive (o) groove alignment

Fig. C-1

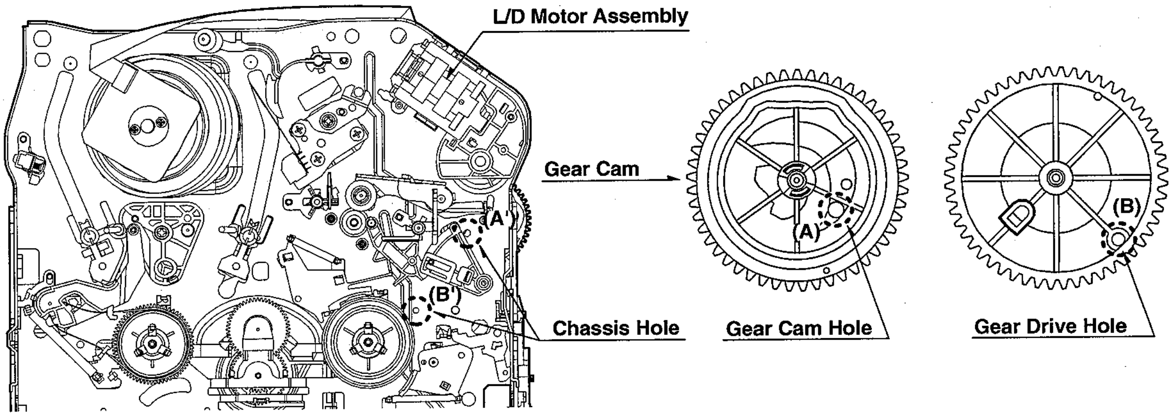

L/D Motor Assembly
Gear Cam
(A')
(B')
(A)
(B)
Chassis Hole
Gear Cam Hole
Gear Drive Hole
TOP VIEW

Fig. C-2

## 2. Preparation for Adjustment (To set the Deck Mechanism of the loading state without inserting a cassette tape).

1) Unplug the power cord from the AC outlet.
2) Disassemble the Top Cover and Plate Assembly Top.
3) Plug the power cord into the AC outlet.
4) Turn the power S/W on and push the Lever Stopper of the Holder Assembly CST to the back for loading the cassette without tape.
Cover the holes of the End Sensors at the both sides of the Chassis to prevent a light leak.
Then the Deck Mechanism drives to the Stop Mode.
In this case, the Deck Mechanism can accept inputs of each mode, however the Rewind and Review operation can not be performed for more than a few seconds because the Take-up Reel Table is in the Stop State and can not be detected the Reel Pulses.

## 3. Checking Torque

**Purpose: To insure smooth transport of the tape during each mode of operation.**
**If the tape transport is abnormal, then check the torque as indicated by the chart below.**

| Test Equipment/ Fixture | Test Conditions (Mechanism Condition) | Checking Method |
|---|---|---|
| • Torque Gauge(600g/cm ATG)<br>• Torque Gauge Adaptor<br>• Cassette Torque Meter SRK-VHT-303 | • Play (FF) or Review (REW) Mode | • Perform each Deck Mechanism mode without inserting a cassette tape(Refer to above No.2 Preparation for Adjustment).<br>• Read the measurement of the Take-up or Supply Reels on the Cassette Torque Meter(Fig. C-3-2).<br>• Attach the Torque Gauge Adaptor to the Torque Gauge and then read the value of it(Fig. C-3-1). |

| Item | Mode | Test Equipment | Measurement Reel | Measurement Values |
|---|---|---|---|---|
| Fast Forward Torque | Fast Forward | Cassette Torque Gauge | Take-Up Reel | More than 400g/cm |
| Rewind Torque | Rewind | Cassette Torque Gauge | Supply Reel | More than 400g/cm |
| Play Take-Up Torque | Play | Cassette Torque Meter | Take-Up Reel | 40~100g/cm |
| Review Torque | Review | Cassette Torque Meter | Supply Reel | 120~210g/cm |

**NOTE:**

The values are measured by using a Torque Gauge and Torque Gauge Adaptor with the Torque Gauge affixed.

**NOTE:**

The torque reading to measure occurs when the tape abruptly changes direction from Fast Forward to Rewind Mode, when quick braking is applied to both Reels.

**• Torque Gauge (600g.cm ATG)**

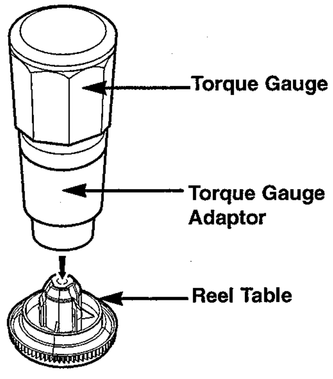


Fig. C-3-1

**• Cassette Torque Meter (SRK-VHT-303)**

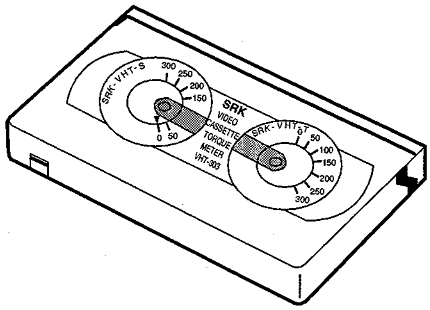


Fig. C-3-2

# DECK MECHANISM ADJUSTMENT

## 4.Guide Roller Height Adjustment

**Purpose: To regulate the height of the tape so that the bottom of the tape runs along the tape guide line on the Lower Drum.**

### 4-1. Preliminary Adjustment

| Test Equipment/ Fixture | Test Conditions (Mechanism Condition) | Adjustment Point |
|---|---|---|
| • Post Height Adjusting Driver | • Play or Review Mode | • Guide Roller Height Adjustment screws on the Supply and Take-Up Guide Rollers. |

**Adjustment Procedure**

1) Confirm if the tape runs along the tape guide line of the Lower Drum.
2) If the tape runs the bottom of the guide line, turn the Guide Roller Height Adjustment Screw to clockwise direction.
3) If it runs the top, turn to counterclockwise direction.
4) Adjust the height of the Guide Roller to be guided to the guide line of the Lower Drum from the starting and ending point of the Drum.

**ADJUSTMENT DIAGRAM**

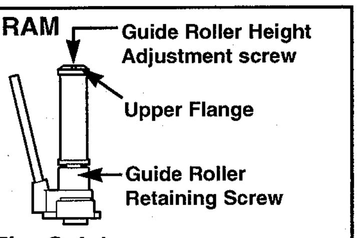

Guide Roller Height Adjustment screw
Upper Flange
Guide Roller Retaining Screw

Fig. C-4-1

### 4-2. Precise Adjustment

| Test Equipment/Fixture | Test Equipment Connection Points | Test Conditions VCR(VCP) State | Adjustment Point |
|---|---|---|---|
| • Oscilloscope<br>• Alignment Tape<br>• Post Height Adjusting Driver | • CH-1:PB RF Envelope<br>• CH-2:NTSC: SW 30Hz<br>PAL: SW 25Hz<br>• Head Switching Output Point<br>• RF Envelope Output Point | • Play an Alignment Tape | • Guide Roller Height Adjustment Screws |

**Adjustment Procedure**

1) Play an Alignment Tape after connecting the probe of the Oscilloscope to the RF Envelope Output Test Point and Head Switching Output Test Point.
2) Tracking Control(in PB Mode) : Center Position(When this adjustment is performed after the Drum Assembly has been replaced, set the Tracking Control so that the RF Output is Maximum).
3) Height Adjustment Screw : Flatten the RF waveform. (Fig. C-4-2)
4) Turn(Move) the Tracking Control(in PB Mode) clockwise and counterclockwise.(Fig. C-4-3)
5) Check that any drop of RF Output is uniform at the start and end of the waveform.

**NOTE**

If the adjustment is excessive or insufficient the tape will jam or fold.

**Waveform Diagrams**

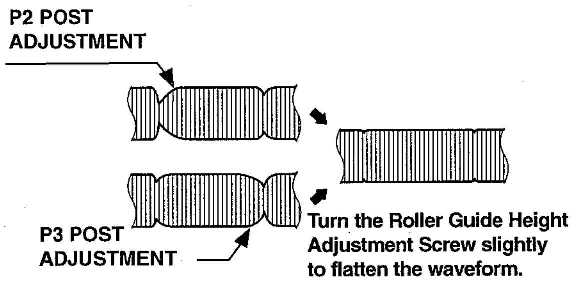

P2 POST ADJUSTMENT
P3 POST ADJUSTMENT
Turn the Roller Guide Height Adjustment Screw slightly to flatten the waveform.

Fig. C-4-2

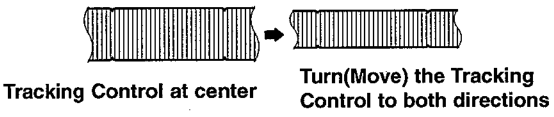
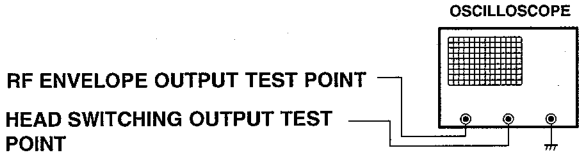

Tracking Control at center
Turn(Move) the Tracking Control to both directions

Fig. C-4-3

**Connection Diagram**


OSCILLOSCOPE
RF ENVELOPE OUTPUT TEST POINT
HEAD SWITCHING OUTPUT TEST POINT

## 5. Audio/Control (A/C) Head Adjustment

**Purpose: To insure that the tape passes accurately over the Audio and Control Tracks in exact alignment of the both Record and Playback Modes.**

### 5-1. Preliminary Adjustment (Height and Tilt Adjustment)

**Perform the Preliminary Adjustment, when there is no Audio Output Signal with the Alignment Tape.**

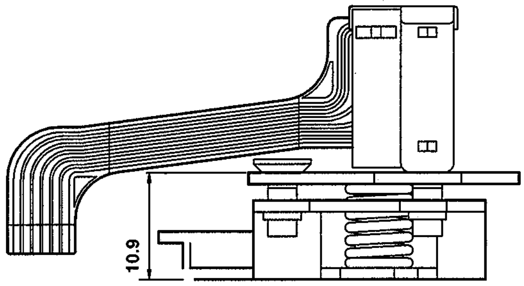
| Test Equipment/ Fixture | Test Conditions (Mechanism Condition) | Adjustment Point |
|---|---|---|
| • Blank Tape<br>• Screw Driver(+) Type 5mm | • Play the blank tape | • Tilt Adjustment Screw(C)<br>• Height Adjustment Screw(B)<br>• Azimuth Adjustment Screw(A) |

**Adjustment Procedure/Diagrams**

1) Initially adjust the Base Assembly A/C Head as shown Fig. C-5-1 by using the Height Adjustment Screw(B).
2) Play a blank tape and observe if the tape passes accurately over the A/C Head without tape curling or folding.
3) If folding or curling is occured then adjust the Tilt Adjustment Screw(C) while the tape is running to resemble Fig. C-5-3.
4) Reconfirm the tape path after Playback about 4~5 seconds.

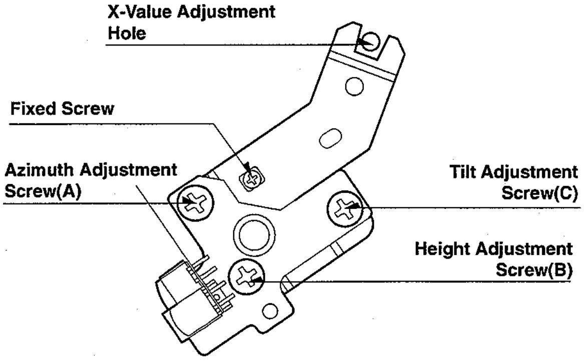
**NOTE**

Ideal A/C head height occurs when the tape runs between 0.2~0.25mm above the bottom edge of the A/C Head core.



A/C Head Base

Fig. C-5-1


X-Value Adjustment Hole
Fixed Screw
Azimuth Adjustment Screw(A)
Tilt Adjustment Screw(C)
Height Adjustment Screw(B)

A/C Head Assembly

Fig. C-5-2

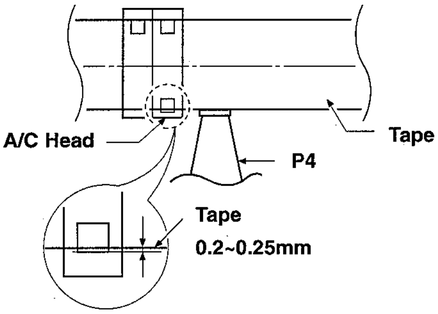

A/C Head
Tape
P4
Tape
0.2~0.25mm

Fig. C-5-3

### 5-2. Confirm that the tape passes smoothly between the Take-up Guide and Pinch Roller(using a mirror or the naked eye).

1) After completing Step 5-1.(Preliminary Adjustment), check that the tape passes around the Take-up Guide and Pinch Roller without folding or curling at the top or bottom.
   (1) If folding or curling is observed at the bottom of the Take-up Guide then slowly turn the Tilt Adjustment Screw(C) in the clockwise direction.
   (2) If folding or curling is observed at the top of it then slowly turn the Tilt Adjustment Screw(C) in the counterclockwise direction.

**NOTE:**

Check the RF envelope after adjusting the A/C Head, if the RF waveform differs from Fig. C-5-4, performs Precise Adjustment to flat the RF waveform.

### 5-3. Precise Adjustment (Azimuth adjustment)

| Test Equipment/ Fixture | Connection Point | Test Conditions (Mechanism Condition) | Adjustment Point |
|---|---|---|---|
| • Oscilloscope<br>• Alignment Tape(SP)<br>• Screw Driver(+) Type 5mm | • Audio output jack | • Play an Alignment Tape 1KHz, 7KHz Sections | • Azimuth Adjustment Screw(A)<br>• Height Adjustment Screw(B) |

**Adjustment Procedure**

1) Connect the probe of the oscilloscope to Audio Output Jack.
2) Alternately adjust the Azimuth Adjustment Screw(A) and the Tilt Adjustment Screw(C) for maximum output of the 1KHz and 7KHz segments, while maintaining the flattest envelope differential between the two frequencies.

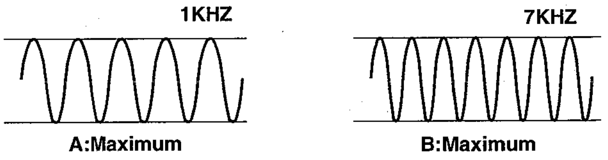
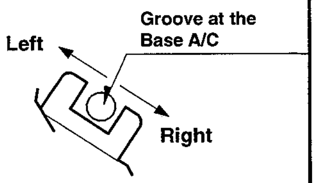


Fig. C-5-4

## 6. X-Value Adjustment

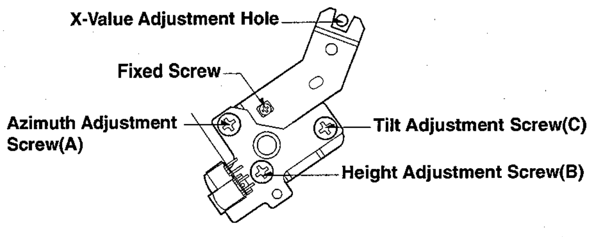
**Purpose: To obtain compatibility with the other VCR(VCP) Models.**

| Test Equipment/ Fixture | Connection Point | Test Conditions (Mechanism Condition) | Adjustment Point |
|---|---|---|---|
| • Oscilloscope<br>• Alignment Tape(SP only)<br>• Screw Driver(+) Type 5mm | • CH-1: PB RF Envelope<br>• CH-2: NTSC: SW 30Hz<br>PAL: SW 25Hz<br>• Head Switching Output Test Point<br>• RF Envelope Output Test Point | • Play an Alignment Tape |  |

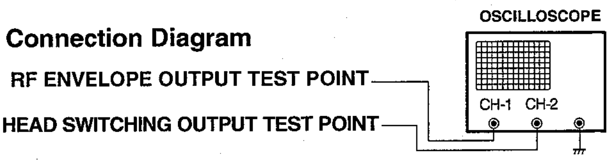
**Adjustment Procedure**

1) Release the Automatic Tracking to run long enough for tracking to complete it's cycle.
2) Loosen the Fixed Mounting Screw and move the Base Assembly A/C Head in the direction as shown in the diagram to find the center of the peak that allows for the maximum waveform envelope.
   This method should allow the 31µm Head to be centrally located over the 58µm tape track.
3) Tighten the Base Assembly A/C Head mounting Screw.

**Adjustment Diagram**



**Connection Diagram**


OSCILLOSCOPE
RF ENVELOPE OUTPUT TEST POINT
HEAD SWITCHING OUTPUT TEST POINT
CH-1
CH-2

## 7. Adjustment after Replacing Drum Assembly (Video Heads)

**Purpose: To correct for shift in the Roller Guide and X value after replacing the Drum.**

| Test Equipment/ Fixture | Connection Point | Test Conditions (Mechanism Condition) | Adjustment Points |
|---|---|---|---|
| • Oscilloscope<br>• Alignment Tapes<br>• Blank Tape<br>• Post Height Adjusting Driver<br>• Screw Driver(+) Type 5mm | • CH-1: PB RF Envelope<br>• CH-2: NTSC: SW 30Hz<br>PAL: SW 25Hz<br>• Head Switching Output Test Point<br>• RF Envelope Output Test Point | • Play the Blank Tape<br>• Play an Alignment Tape | • Guide Roller Precise Adjustment<br>• Switching Point<br>• Tracking Preset<br>• X-Value |

**Checking/Adjustment Procedure**

Play a blank tape and check for tape curling or creasing around the Roller Guide. If there is a problem then follow the procedure 4. "Guide Roller Height" and 5. "Audio Control(A/C) Head Adjustment".

**Connection Diagram**

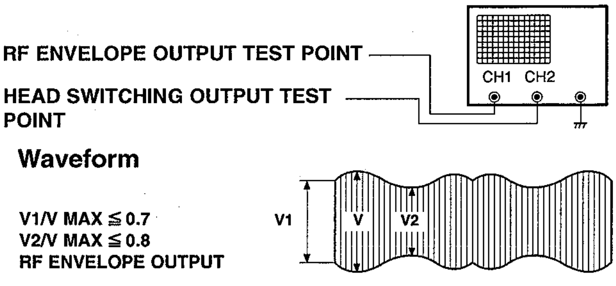


Fig. C-7

## 8. Check the Tape Travel after Reassembling Deck Assembly.

### 8-1. Checking Audio and RF Locking Time during playback and after CUE or REV (FF/REW)

| Test Equipment/ Fixture | Specification | Connection Points | Test Conditions (Mechanism Condition) |
|---|---|---|---|
| • Oscilloscope<br>• Alignment Tapes(with 6H 3KHz Color Bar Signal)<br>• Stop Watch | • RF Locking Time: Less than 5 sec.<br>• Audio Locking Time:Less than 10sec | • CH-1: PB RF Envelope<br>• CH-2: Audio Output<br>• RF Envelope Output Point<br>• Audio Output Jack | • Play an Alignment Tape (with 6H 3kHz Color Bar Signal) |

**Checking Procedure**

Play an Alignment Tape then change the operating mode to CUE or REV and confirm if the unit meets the above listed specifications.

**NOTES:**

1) CUE is the forward search mode
2) REV is the backward search mode
3) Refer to the Play mede

### 8-2. Checking for tape curling or jamming

| Test Equipment/ Fixture | Specification | Test Conditions (Mechanism Condition) |
|---|---|---|
| • T-160 Tape<br>• T-120 Tape | • Be sure there is no tape jamming or curling at the begining, middle or end of the tape. | • Run the CUE, REV, Play mode at the beginning and the end of the tape. |

**Checking Procedure**

1) Confirm that the tape runs smoothly around the roller guides, Drum and A/C Head Assemblies while abruptly changing operating modes from Play to CUE or REV. This is to be checked at the begining, middle and end sections of the tape.
2) Confirm that the tape passes over the A/C Head Assembly as indicated by proper audio reproduction and proper tape counter performance.

# MAINTENANCE/INSPECTION PROCEDURE

## 1. Check before starting repairs

The following faults can be remedied by cleaning and oiling. Check the needed lubrication and the conditions of cleanliness in the unit.
Check with the customer to find out how often the unit is used, and then determine that the unit is ready for inspection and maintenance. Check the following parts.

| Phenomenon | Inspection | Replace-ment |
|---|---|---|
| Color beats | Dirt on Full-Erase Head | o |
| Poor S/N, no color | Dirt on Video Head | o |
| Vertical or Horizontal jitter | Dirt on Video Head<br>Dirt on tape transport system | o |
| Low volume, Sound distorted | Dirt on Audio/Control Head | o |
| Tape does not run. Tape is slack | Dirt on Pinch Roller | o |
| In Review and Unloading (off mode), the tape is rolled up loosely. | Clutch Assembly D35 torque reduced | o |
|  | Cleaning Drum and transport system | Fig. C-9-3 |

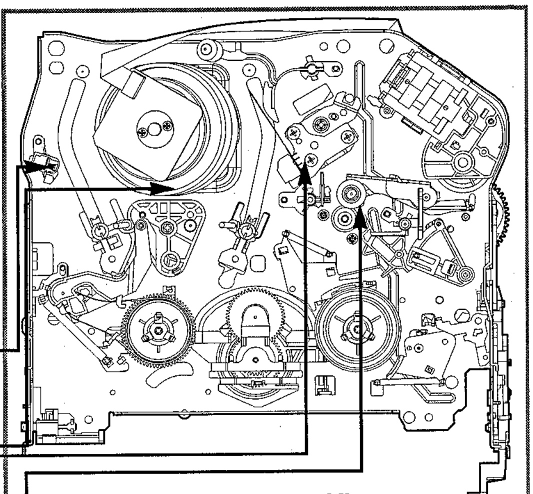

F/E Head
Video Head
A/C Head
Pinch Roller

Fig. C-9-1 Top View

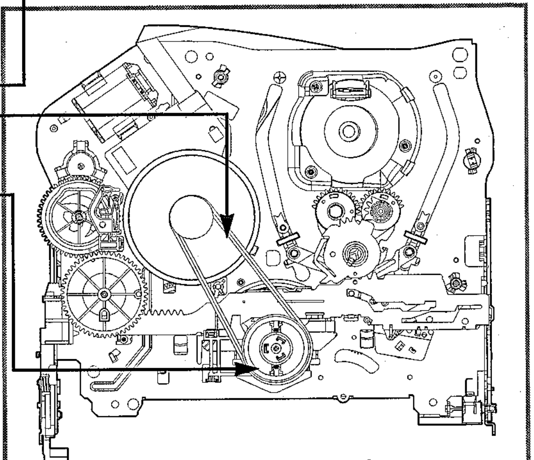

Belt Capston
Clutch Assembly D35

Fig. C-9-2 Bottom View

**NOTE**

If locations marked with **o** do not operate normally after cleaning, check for wear and replace.
See the EXPLODED VIEWS at the end of this manual as well as the above illustrations and see the Greasing (Page 4-21, 22) for the sections to be lubricated and greased.

*** No. (1)~(12) Indicates the Tape Path to be traveled from Supply Reel to Take-up Reel.**

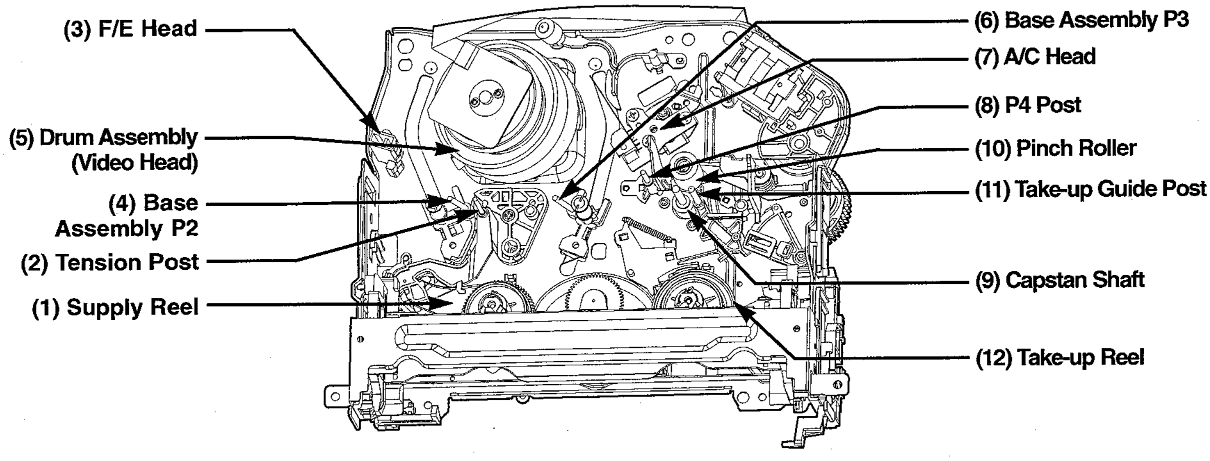

(3) F/E Head
(5) Drum Assembly (Video Head)
(4) Base Assembly P2
(2) Tension Post
(1) Supply Reel
(6) Base Assembly P3
(7) A/C Head
(8) P4 Post
(10) Pinch Roller
(11) Take-up Guide Post
(9) Capstan Shaft
(12) Take-up Reel

Fig. C-9-3 Tape Transport System

# MAINTENANCE/INSPECTION PROCEDURE

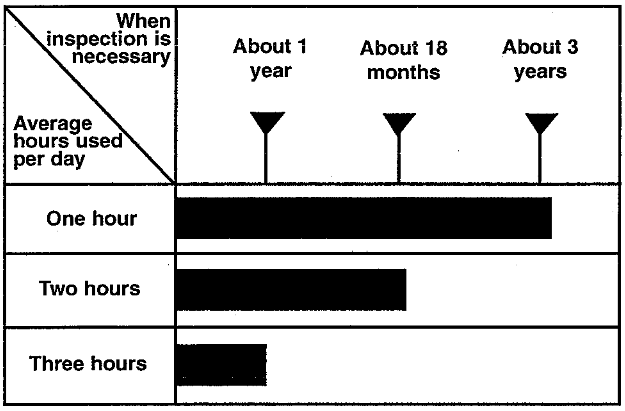
## 2. Required Maintenance

The recording density of a VCR(VCP) is much higher than that of an audio tape recorder. VCR(VCP) components must be very precise, at tolerances of 1/1000mm, to ensure compatibility with the other VCRs. If any of these components are worn or dirty, the symptoms will be the same as if the part is defective. To ensure a good picture, periodic inspection and maintenance, including replacement of worn out parts and lubrication, is necessary.

## 3. Scheduled Maintenance

Schedules for maintenance and inspection are not fixed because they vary greatly according to the way in which the customer uses the VCR(VCP), and the environment in which the VCR(VCP) is used.
But, in general home use, a good picture will be maintained if inspection and maintenance is made every 1,000 hours. The table below shows the relation between time used and inspection period.

Table 1



## 4. Supplies Required for Inspection and Maintence

(1) Grease : Kanto G-311G (Blue) or equivalent
(2) Isopropyl Alcohol or equivalent
(3) Cleaning Patches
(4) Grease : Kanto G-381(Yellow)

## 5. Maintenance Procedure

### 5-1) Cleaning

(1) Cleaning video head
First use a cleaning tape. If the dirt on the head is too stubborn to remove by tape, use the cleaning patch. Coat the cleaning patch with Isopropyl Alcohol. Touch the cleaning patch to the head tip and gently turn the head(rotating cylinder) right and left.
(Do not move the cleaning patch vertically. Make sure that only the buckskin on the cleaning patch comes into contact with the head. Otherwise, the head may be damaged.)
Thoroughly dry the head. Then run the test tape. If Isopropyl Alcohol remains on the video head, the tape may be damaged when it comes into contact with the head surface.

(2) Clean the tape transport system and drive system, etc, by wiping with a cleaning patch wetted with Isopropyl Alcohol.

**NOTES:**

① It is the tape transport system which comes into contact with the running tape. The drive system consists of those parts which moves the tape.

② Make sure that during cleaning you do not touch the tape transport system with excessive force that would cause deformation or damage to the system.

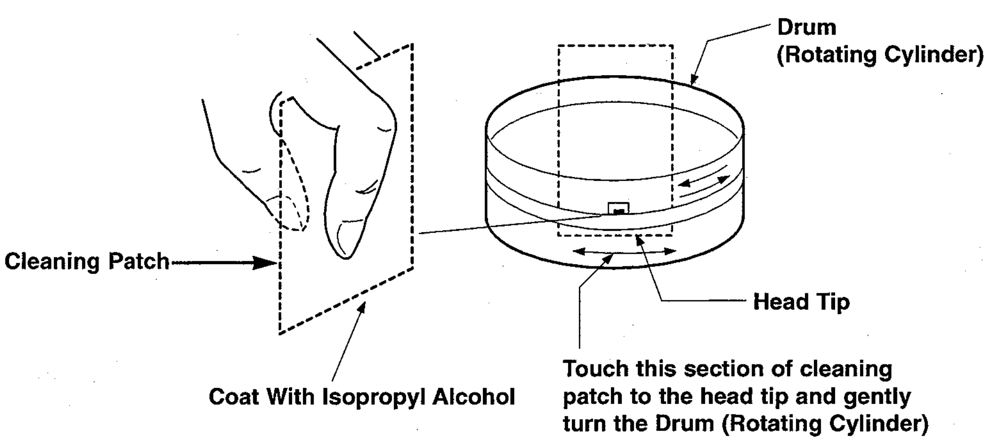

Drum
(Rotating Cylinder)
Cleaning Patch
Head Tip
Coat With Isopropyl Alcohol
Touch this section of cleaning patch to the head tip and gently turn the Drum (Rotating Cylinder)

Fig. C-9-4

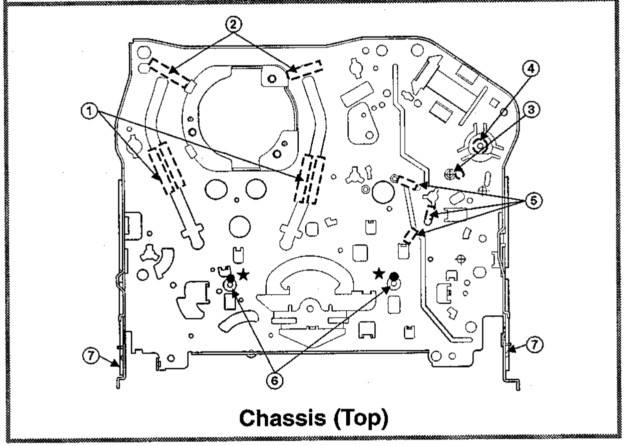
## 5-2) Greasing

(1) Greasing guidelines

Apply grease, with a cleaning patch. Do not use excessive grease. It may come into contact with the tape transport or drive system. Wipe excessive grease and clean with cleaning patch wetted in Isopropyl Alcohol.

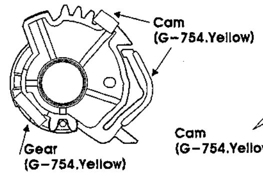
**NOTE:Greasing Points**

1) Loading Path Inside & Top side
2) Base Assembly P2, P3 stopper
3) Shaft
4) L/D Motor Gear Wheel Part
5) Arm Take-up Rubbing Sections
6) Reel S,T shaft(G381:Yellow)
7) Arm Assembly F/L Rotating Sections

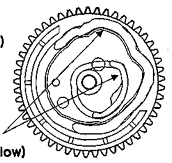


**Chassis (Top)**

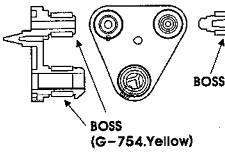
Gear Part


Cam
(G-754.Yellow)
Gear
(G-754.Yellow)

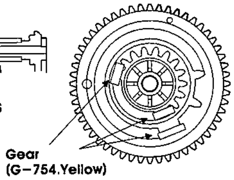
**Gear Sector**


Cam
(G-754.Yellow)

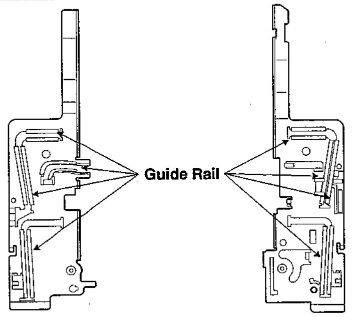
**Gear Cam**


BOSS
BOSS
(G-754.Yellow)

**Base Loading**


Gear
(G-754.Yellow)

**Gear Drive**

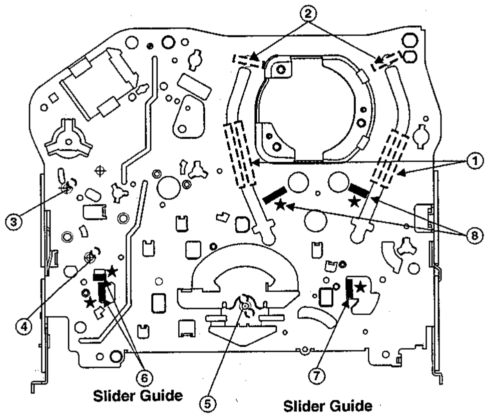


**Chassis (Left Side)** **Chassis (Right Side)**

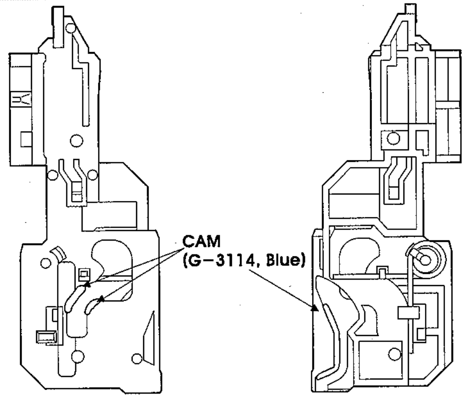
(2) Periodic greasing

Grease specified locations every 5,000 hours.

1) Loading Path Inside & Top side
2) Base Assembly P2,P3 stopper
3) Shaft
4) Shaft
5) Clutch Assembly D35 Shaft
6) Plate Slider Guide Sections
7) Plate Slider Guide Sections
8) Gear Assembly P2, P2 Rubbing Sections


②
①
③
⑧
④
⑥
Slider Guide
⑤
⑦
Slider Guide

**Chassis (Bottom)**


CAM
(G-3114, Blue)

**Gear Rack F/L**

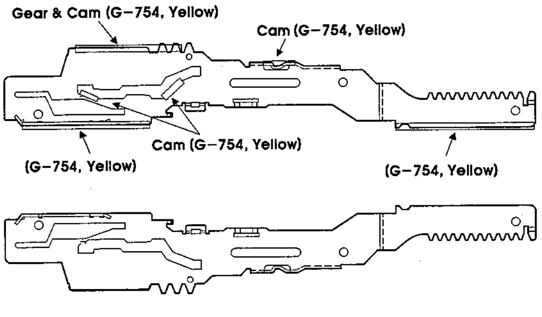
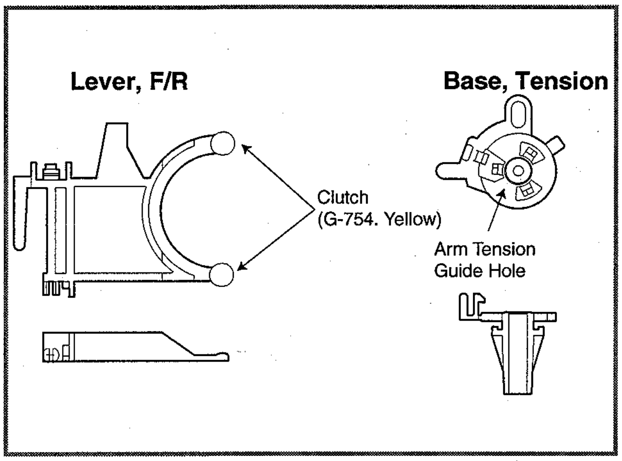

Gear & Cam (G-754, Yellow)
Cam (G-754, Yellow)
Cam (G-754, Yellow)
(G-754, Yellow)
(G-754, Yellow)

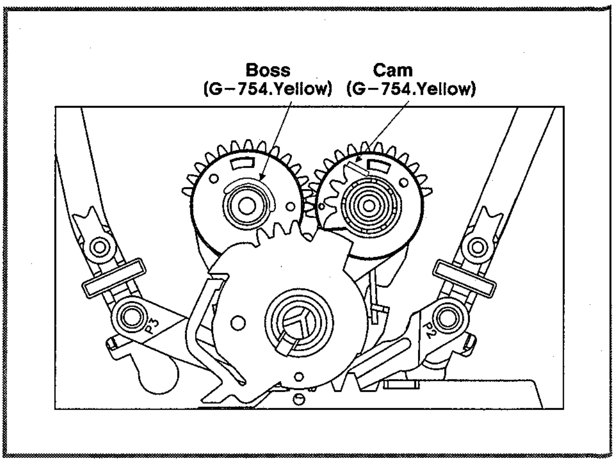
**Plate Slider**

# MAINTENANCE/INSPECTION PROCEDURE

## Lever, F/R, Base, Tension


Lever, F/R
Base, Tension
Clutch
(G-754. Yellow)
Arm Tension
Guide Hole

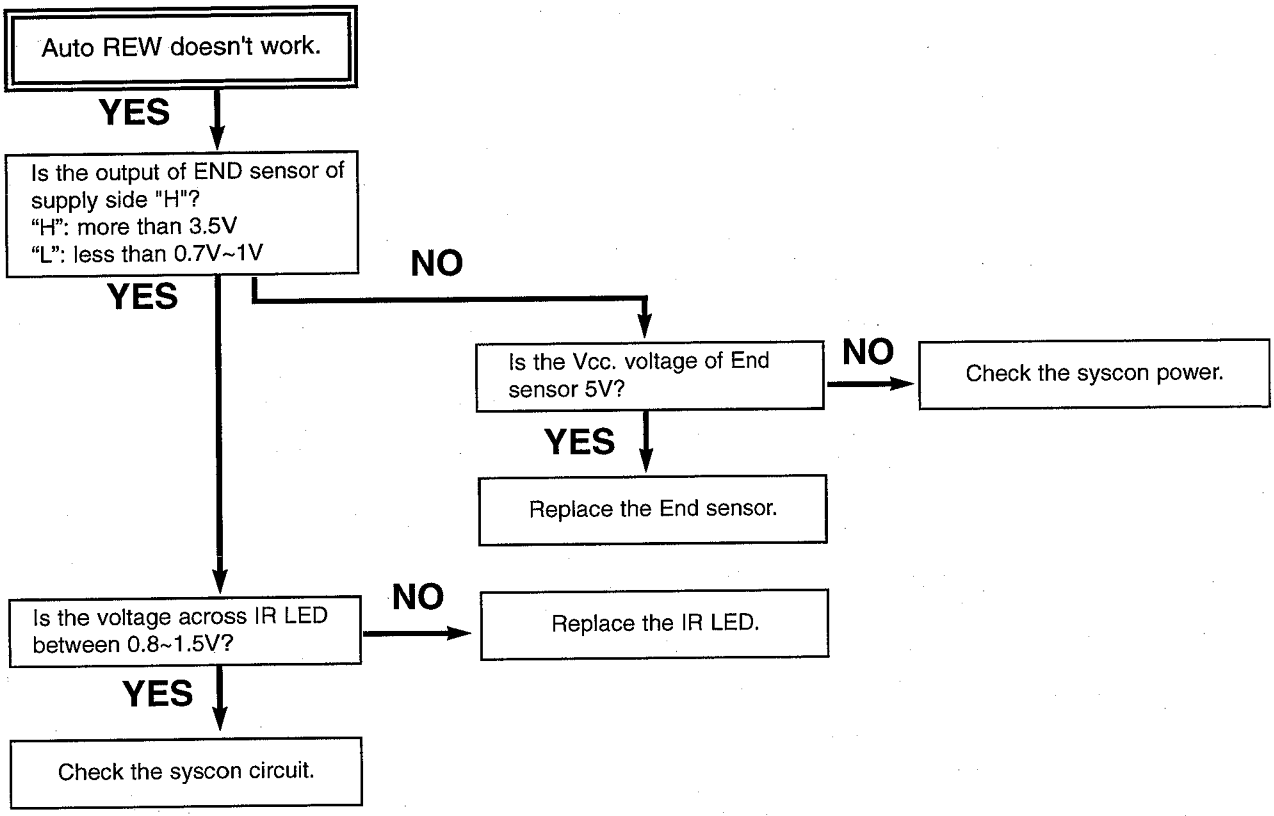
## GEAR AY, P2 & P3


Boss
(G−754.Yellow)
Cam
(G−754.Yellow)
P3
P2

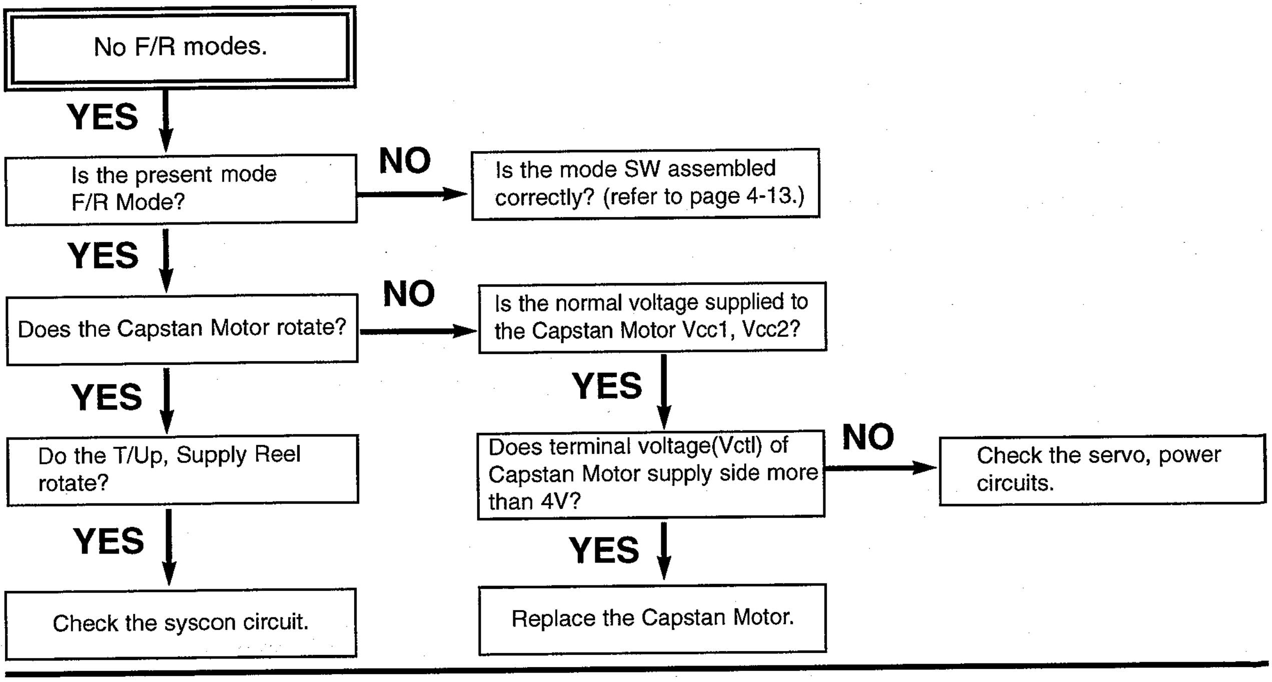
# MECHANISM TROUBLESHOOTING GUIDE

## 1.Deck Mechanism

A.

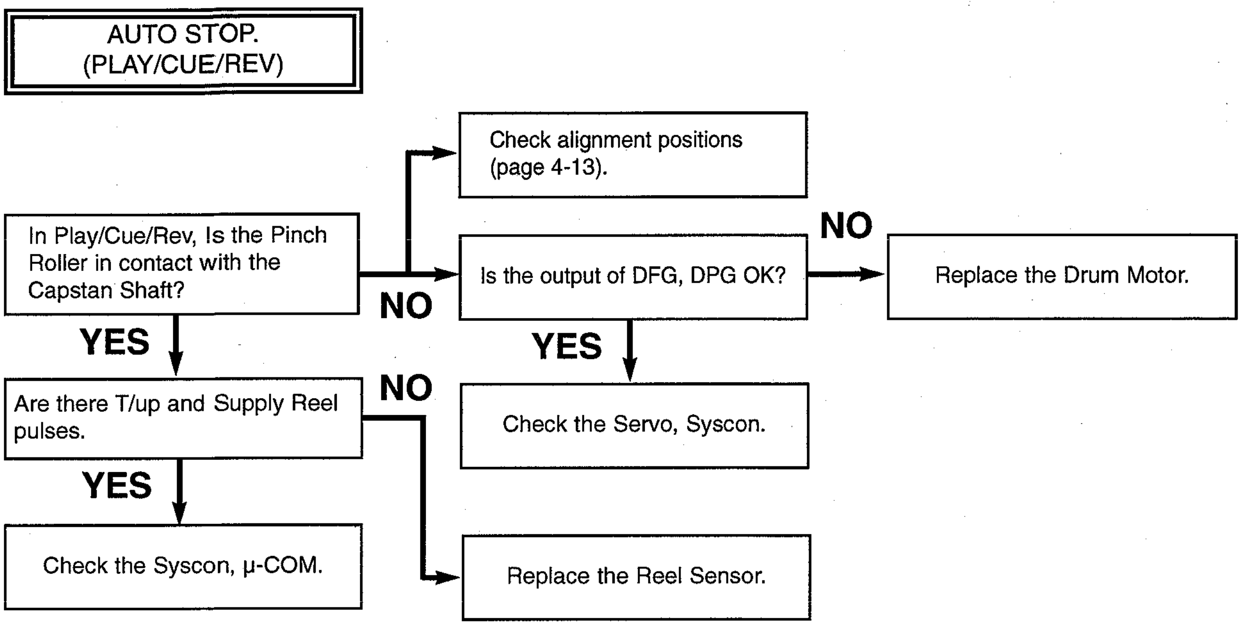

Auto REW doesn't work.
YES
Is the output of END sensor of supply side "H"?
"H": more than 3.5V
"L": less than 0.7V~1V
YES
NO
Is the Vcc. voltage of End sensor 5V?
NO
Check the syscon power.
YES
Replace the End sensor.
Is the voltage across IR LED between 0.8~1.5V?
NO
Replace the IR LED.
YES
Check the syscon circuit.

B.

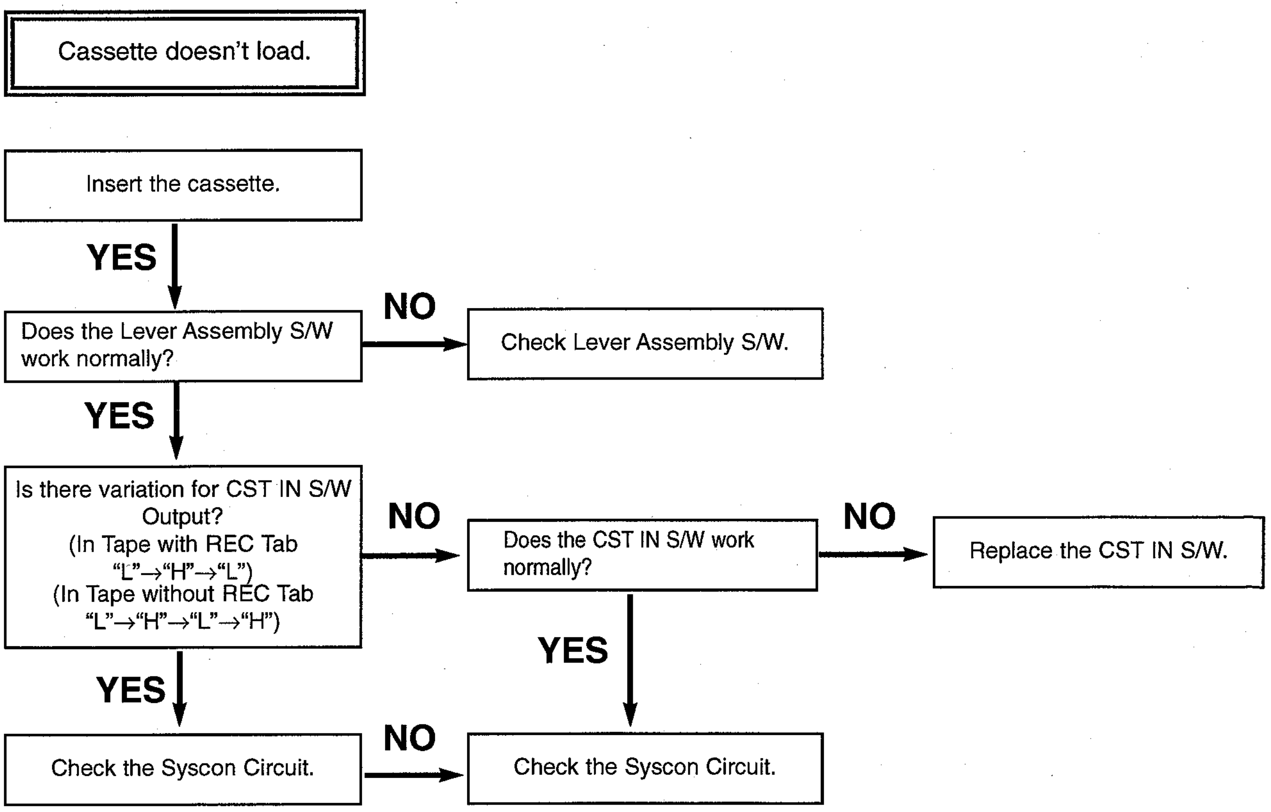

No F/R modes.
YES
Is the present mode F/R Mode?
NO
Is the mode SW assembled correctly? (refer to page 4-13.)
YES
Does the Capstan Motor rotate?
NO
Is the normal voltage supplied to the Capstan Motor Vcc1, Vcc2?
YES
YES
Do the T/Up, Supply Reel rotate?
Does terminal voltage(Vctl) of Capstan Motor supply side more than 4V?
NO
Check the servo, power circuits.
YES
YES
Check the syscon circuit.
Replace the Capstan Motor.

# MECHANISM TROUBLESHOOTING GUIDE

C.

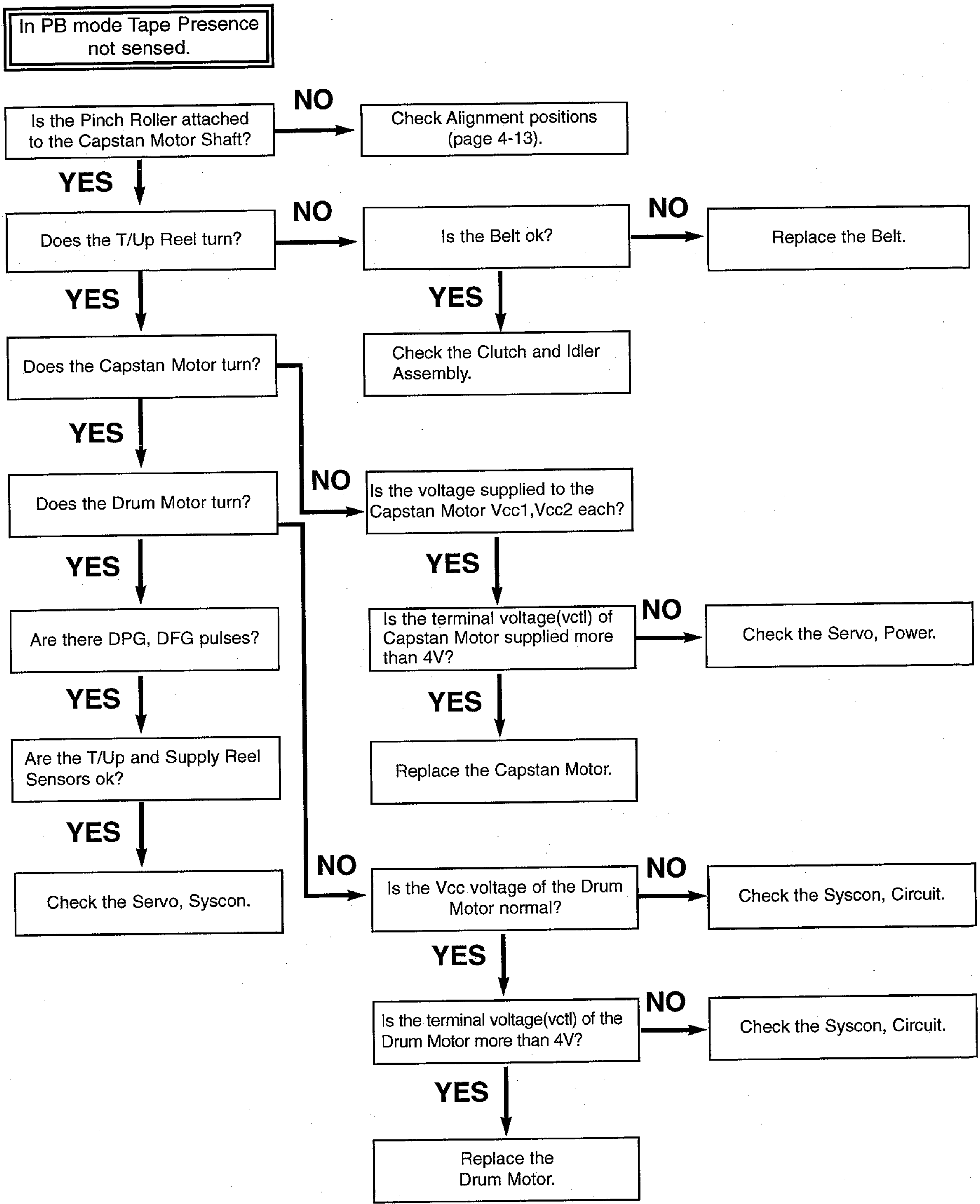

AUTO STOP.
(PLAY/CUE/REV)
Check alignment positions (page 4-13).
In Play/Cue/Rev, Is the Pinch Roller in contact with the Capstan Shaft?
NO
Is the output of DFG, DPG OK?
NO
Replace the Drum Motor.
YES
YES
Are there T/up and Supply Reel pulses.
NO
Check the Servo, Syscon.
YES
Check the Syscon, μ-COM.
Replace the Reel Sensor.

D.


Cassette doesn't load.
Insert the cassette.
YES
Does the Lever Assembly S/W work normally?
NO
Check Lever Assembly S/W.
YES
Is there variation for CST IN S/W Output?
(In Tape with REC Tab "L"→"H"→"L")
(In Tape without REC Tab "L"→"H"→"L"→"H")
NO
Does the CST IN S/W work normally?
NO
Replace the CST IN S/W.
YES
YES
Check the Syscon Circuit.
NO
Check the Syscon Circuit.

# MECHANISM TROUBLESHOOTING GUIDE

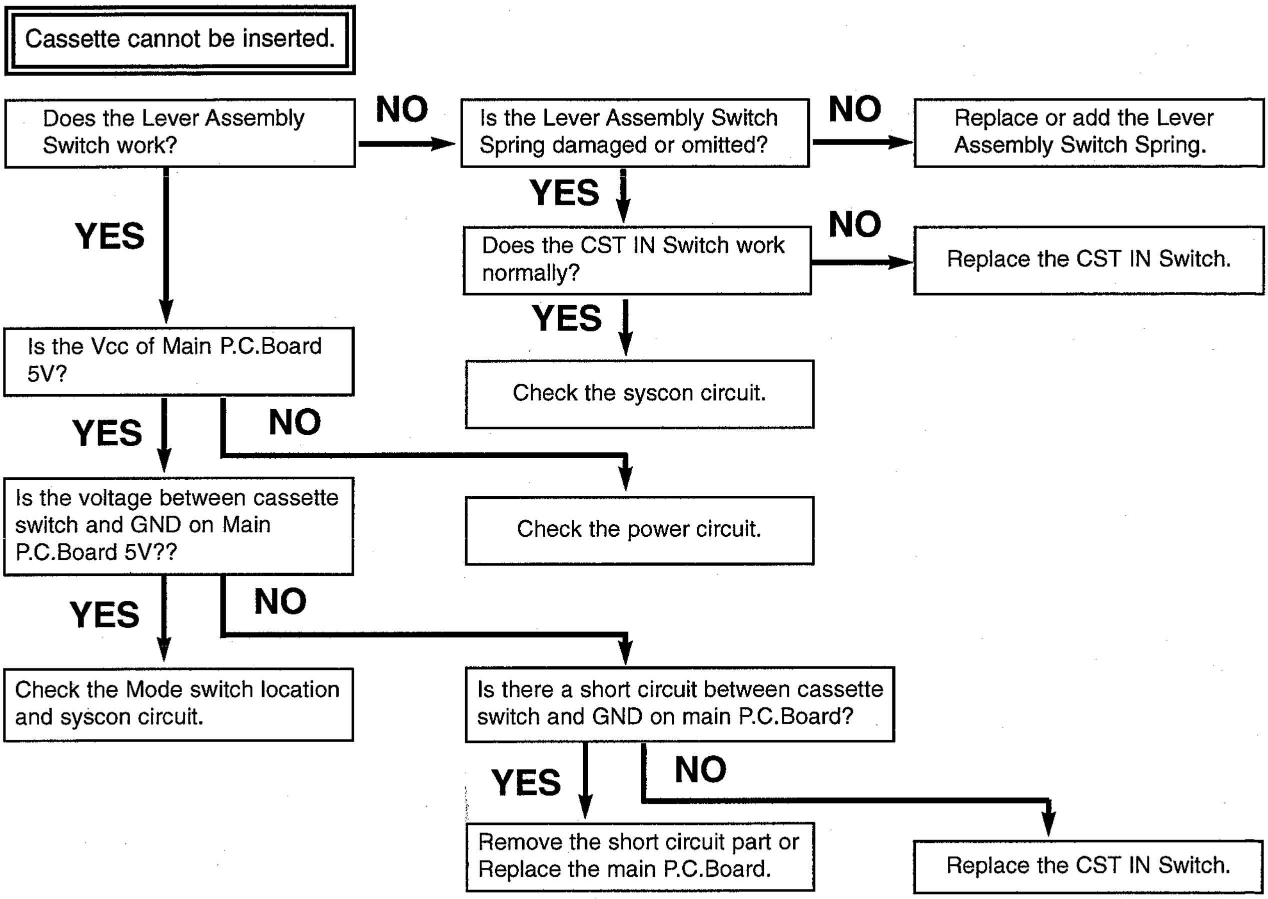
## E.


In PB mode Tape Presence not sensed.
Is the Pinch Roller attached to the Capstan Motor Shaft?
NO
Check Alignment positions (page 4-13).
YES
Does the T/Up Reel turn?
NO
Is the Belt ok?
NO
Replace the Belt.
YES
YES
Check the Clutch and Idler Assembly.
Does the Capstan Motor turn?
YES
NO
Is the voltage supplied to the Capstan Motor Vcc1,Vcc2 each?
Does the Drum Motor turn?
YES
YES
Is the terminal voltage(vctl) of Capstan Motor supplied more than 4V?
NO
Check the Servo, Power.
Are there DPG, DFG pulses?
YES
YES
Replace the Capstan Motor.
Are the T/Up and Supply Reel Sensors ok?
YES
NO
Check the Servo, Syscon.
Is the Vcc voltage of the Drum Motor normal?
NO
Check the Syscon, Circuit.
YES
Is the terminal voltage(vctl) of the Drum Motor more than 4V?
NO
Check the Syscon, Circuit.
YES
Replace the Drum Motor.

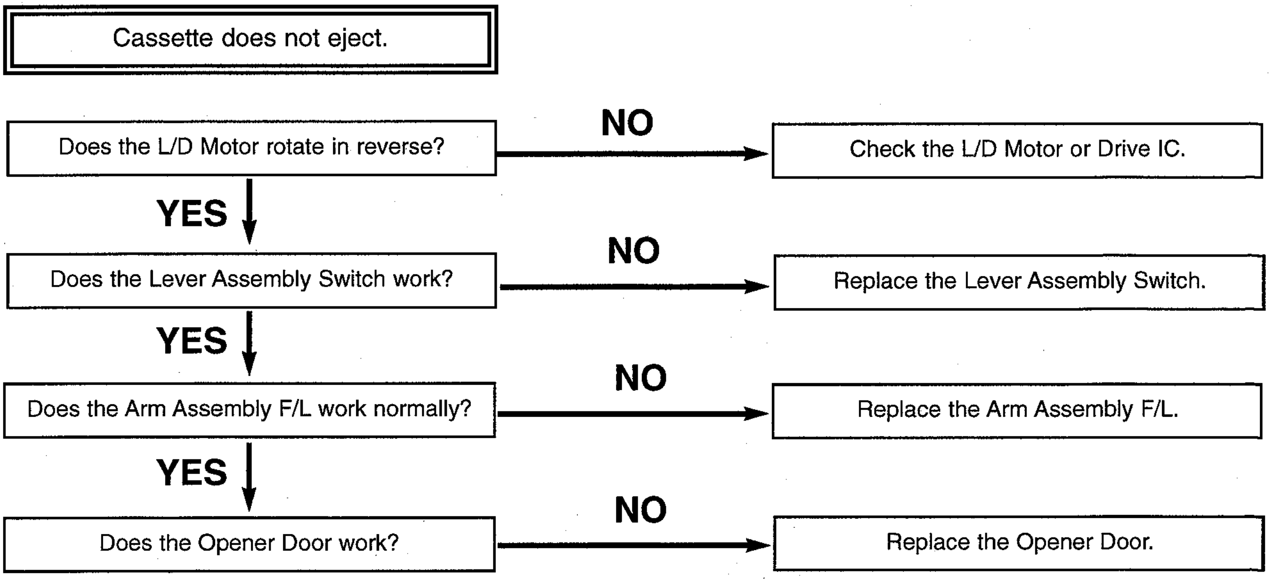
# MECHANISM TROUBLESHOOTING GUIDE

## 2. Front Loading Mechanism

### A.

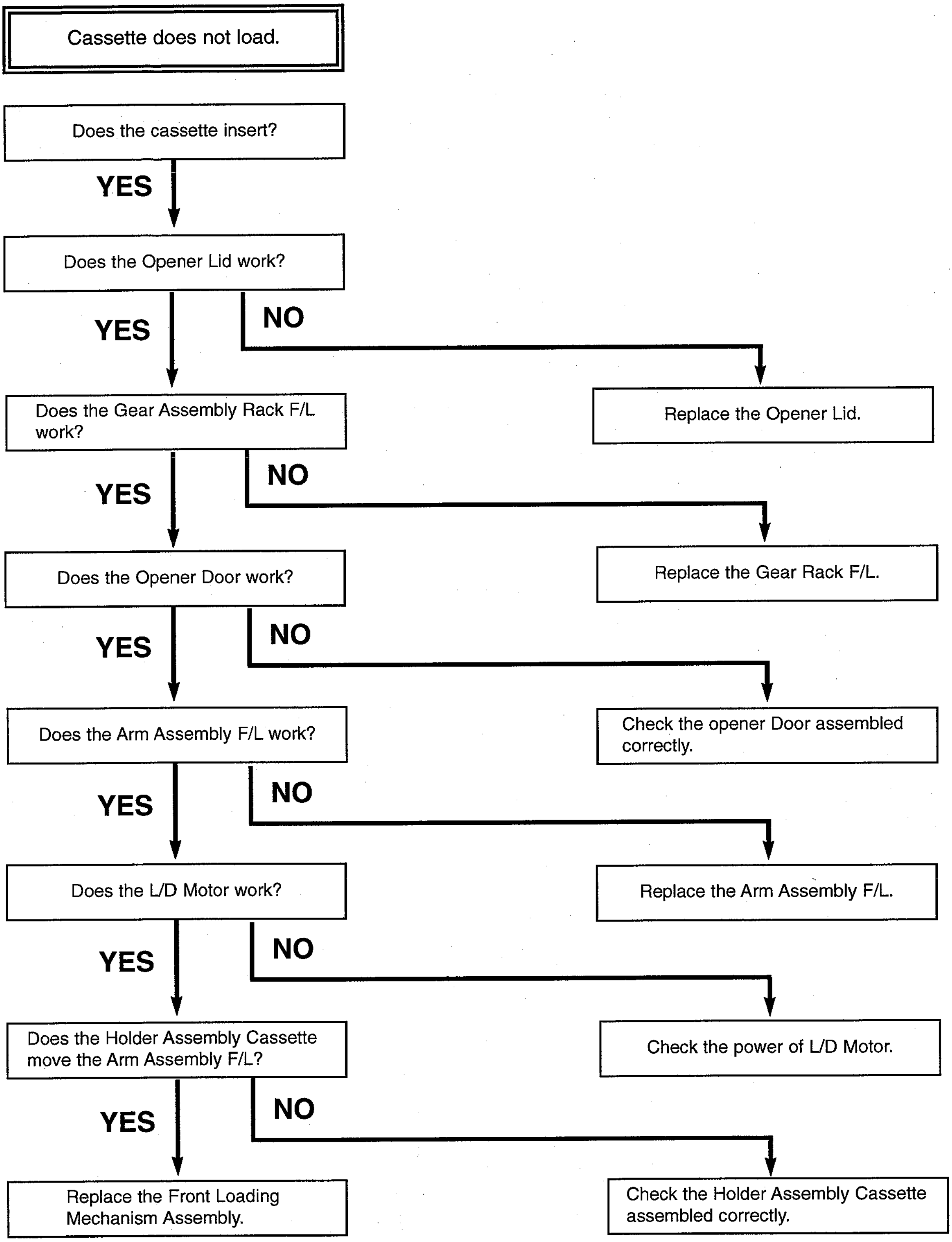

Cassette cannot be inserted.
Does the Lever Assembly Switch work?
NO
Is the Lever Assembly Switch Spring damaged or omitted?
NO
Replace or add the Lever Assembly Switch Spring.
YES
Does the CST IN Switch work normally?
NO
Replace the CST IN Switch.
YES
Check the syscon circuit.
YES
Is the Vcc of Main P.C.Board 5V?
YES
NO
Check the power circuit.
Is the voltage between cassette switch and GND on Main P.C.Board 5V??
YES
NO
Check the Mode switch location and syscon circuit.
Is there a short circuit between cassette switch and GND on main P.C.Board?
YES
NO
Remove the short circuit part or Replace the main P.C.Board.
Replace the CST IN Switch.

### B.


Cassette does not eject.
Does the L/D Motor rotate in reverse?
NO
Check the L/D Motor or Drive IC.
YES
Does the Lever Assembly Switch work?
NO
Replace the Lever Assembly Switch.
YES
Does the Arm Assembly F/L work normally?
NO
Replace the Arm Assembly F/L.
YES
Does the Opener Door work?
NO
Replace the Opener Door.

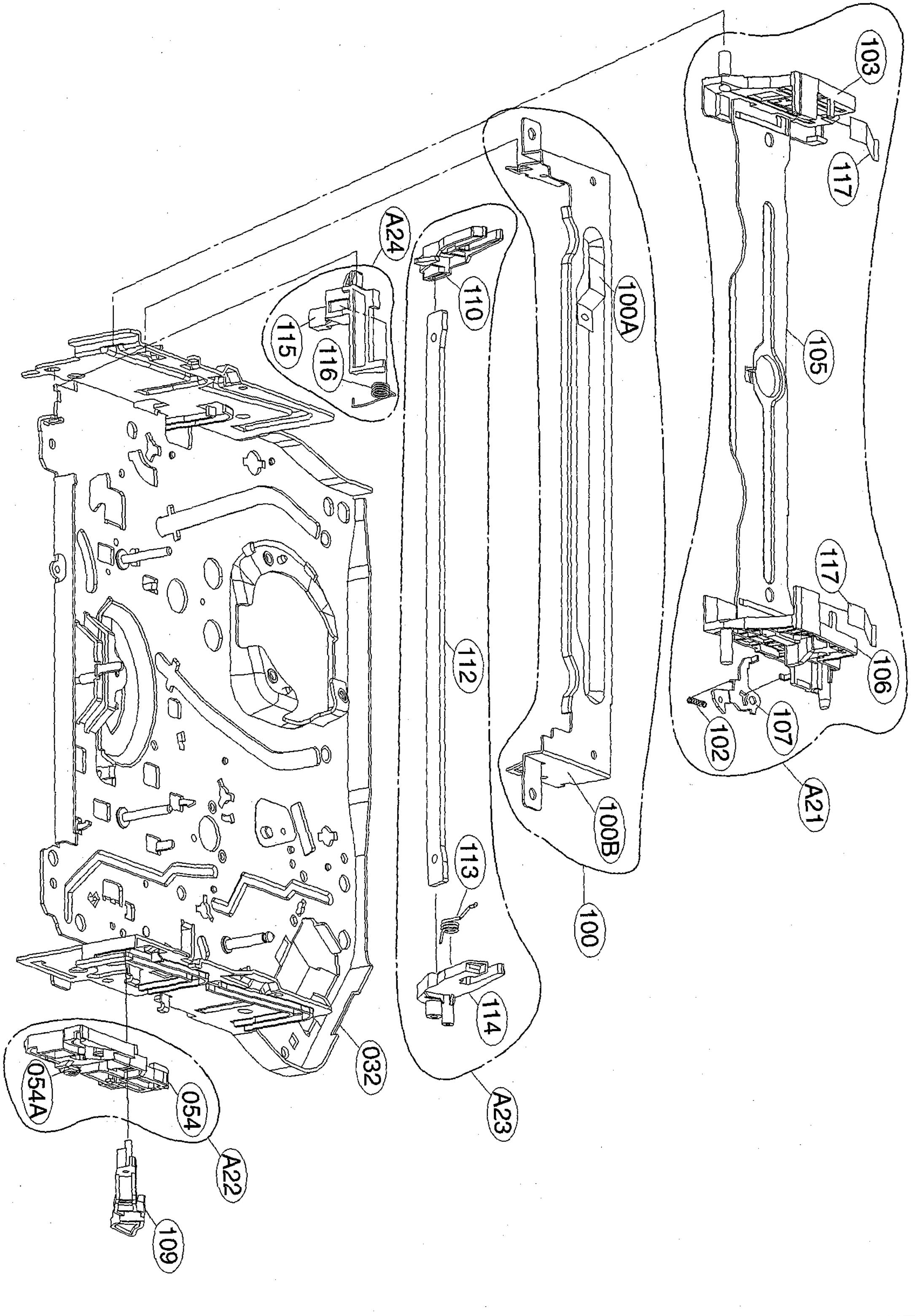
# MECHANISM TROUBLESHOOTING GUIDE

## C.


Cassette does not load.
Does the cassette insert?
YES
Does the Opener Lid work?
YES
NO
Replace the Opener Lid.
Does the Gear Assembly Rack F/L work?
YES
NO
Replace the Gear Rack F/L.
Does the Opener Door work?
YES
NO
Check the opener Door assembled correctly.
Does the Arm Assembly F/L work?
YES
NO
Replace the Arm Assembly F/L.
Does the L/D Motor work?
YES
NO
Check the power of L/D Motor.
Does the Holder Assembly Cassette move the Arm Assembly F/L?
YES
NO
Replace the Front Loading Mechanism Assembly.
Check the Holder Assembly Cassette assembled correctly.

# EXPLODED VIEWS

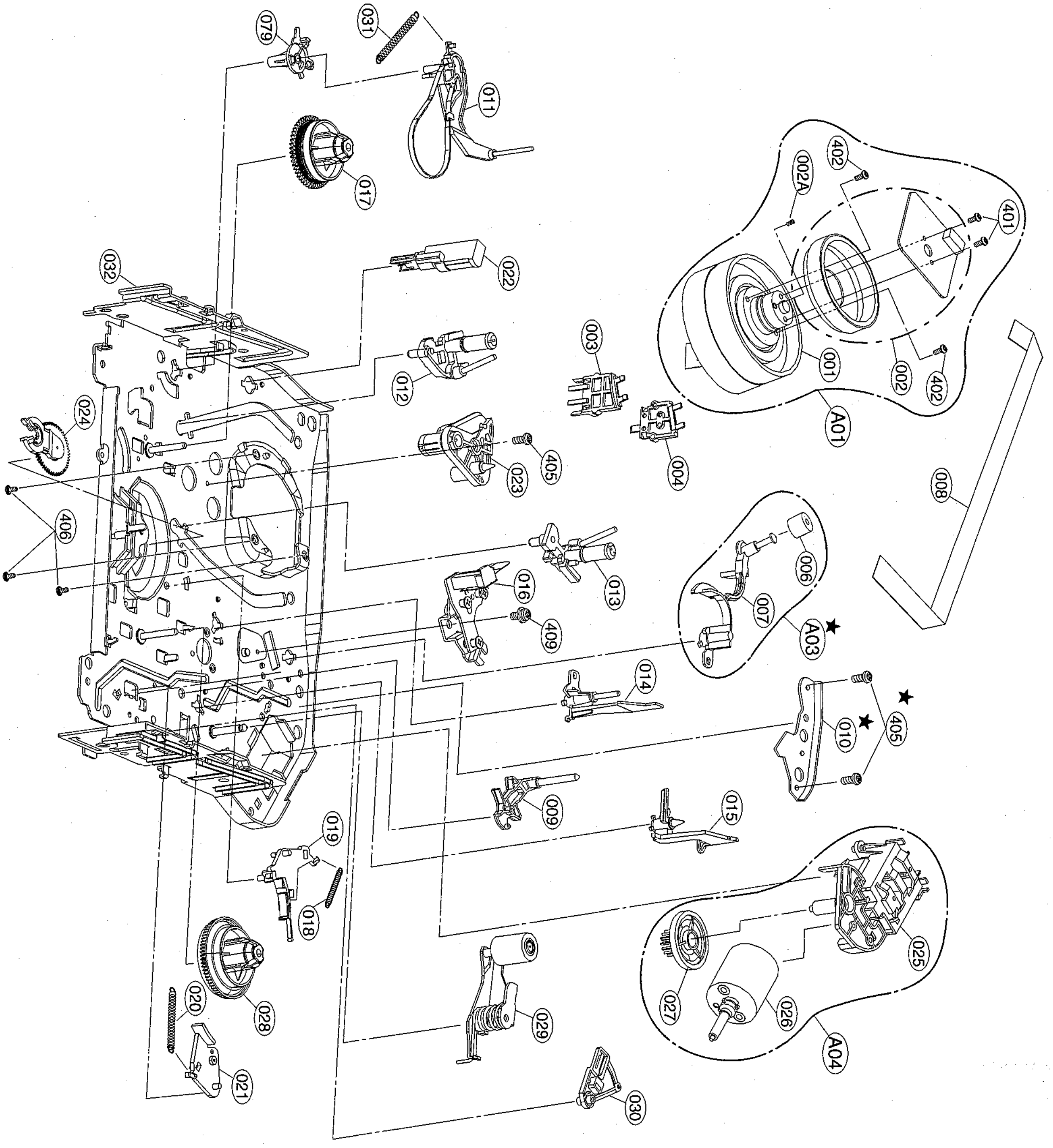
## 1. Front Loading Mechanism Section


103
117
A24
110
100A
105
115
116
112
117
106
107
102
A21
100B
113
100
114
032
A23
054A
054
A22
109

# EXPLODED VIEWS

## 2. Moving Mechanism Section(1)

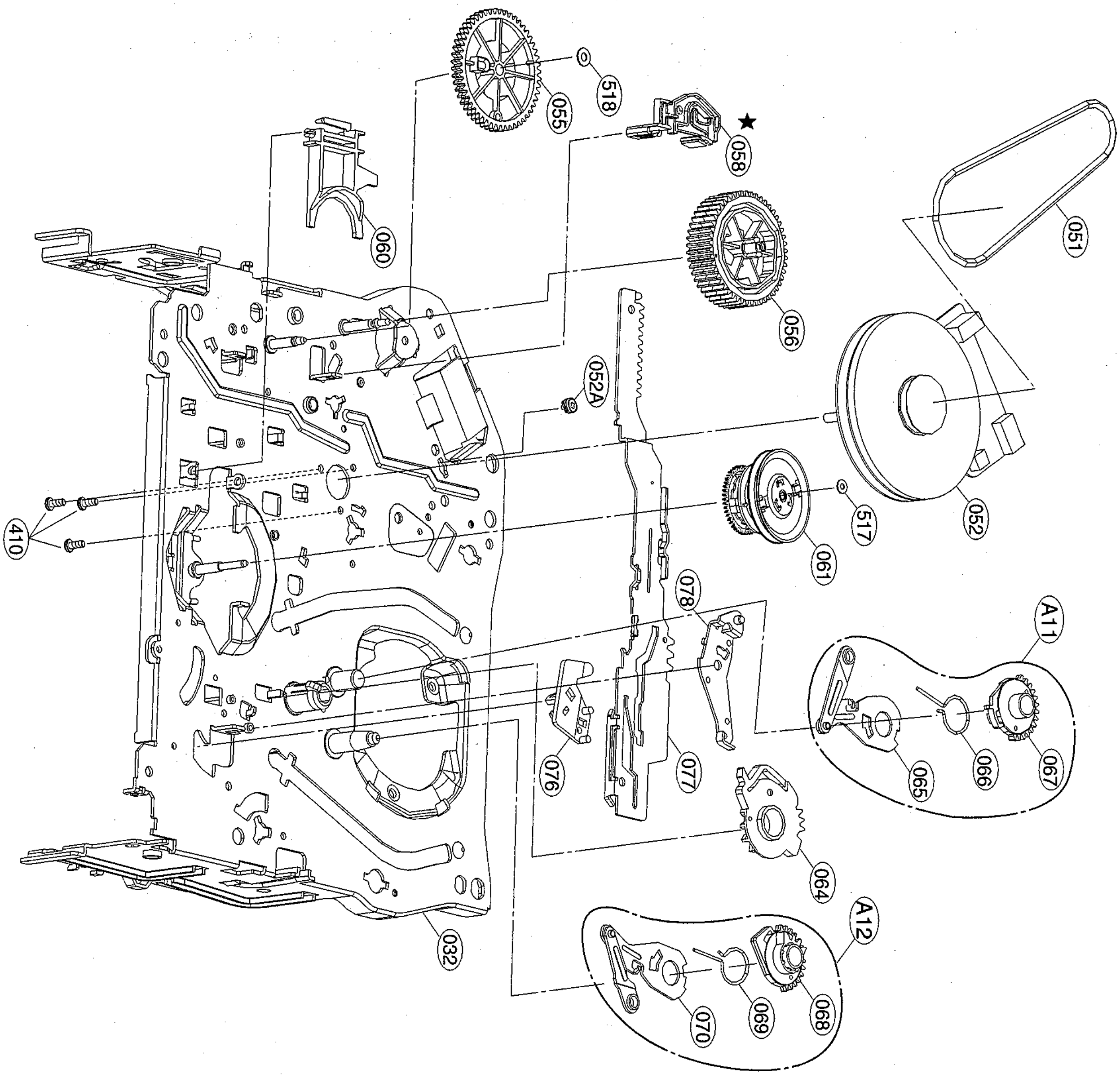
★ OPTIONAL PART


079
031
011
017
022
032
012
024
003
402
002A
401
001
002
402
A01
004
405
023
406
016
013
006
007
A03 ★
008
409
014
010 ★
405 ★
009
015
019
018
025
020
028
027
026
029
A04
021
030

# EXPLODED VIEWS

## 3. Moving Mechanism Section(2)

★ OPTIONAL PART


518
055
058
★
060
051
056
052A
052
517
061
410
078
A11
065
066
067
076
077
064
032
A12
070
069
068

# MEMO

# SECTION 5 MECHANISM OF DVD PART

## CONTENTS

### DECK MECHANISM PARTS LOCATIONS

- Top View .......................................... 5-1
- Top View(without Tray Disc) .......................................... 5-1
- Bottom View .......................................... 5-1

### DECK MECHANISM DISASSEMBLY

1. Holder Clamp .......................................... 5-2

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        1-1-1. Plate Clamp .......................................... 5-2
        1-1-2. Magnet Clamp .......................................... 5-2
        1-1-3. Clamp Upper .......................................... 5-2

2. Tray Disc .......................................... 5-2

3. Base Assembly Sled .......................................... 5-3

    3-1. Gear Assembly Feed .......................................... 5-3
    3-2. Gear Assembly Middle .......................................... 5-3
    3-3. Gear Assembly Rack .......................................... 5-3

4. Rubber Rear .......................................... 5-3

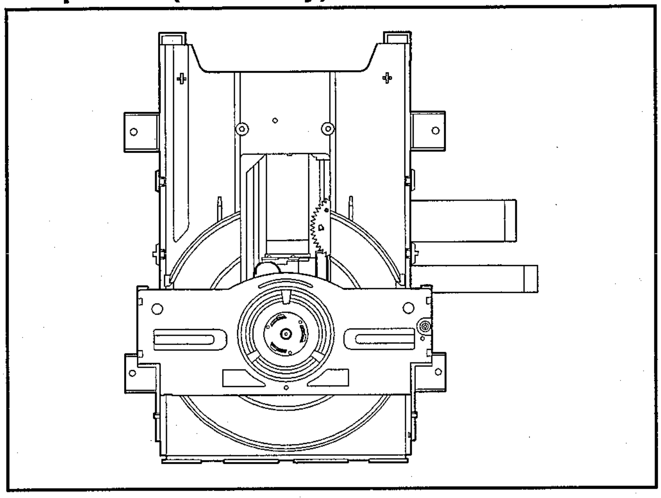
5. Frame Assembly Up/Down .......................................... 5-4
6. Belt Loading .......................................... 5-4
7. Gear Pulley .......................................... 5-4
8. Gear Loading .......................................... 5-4
9. Guide Up/Down .......................................... 5-4
10. PWB Assembly Loading .......................................... 5-4
11. Base Main .......................................... 5-4

### EXPLODED VIEW

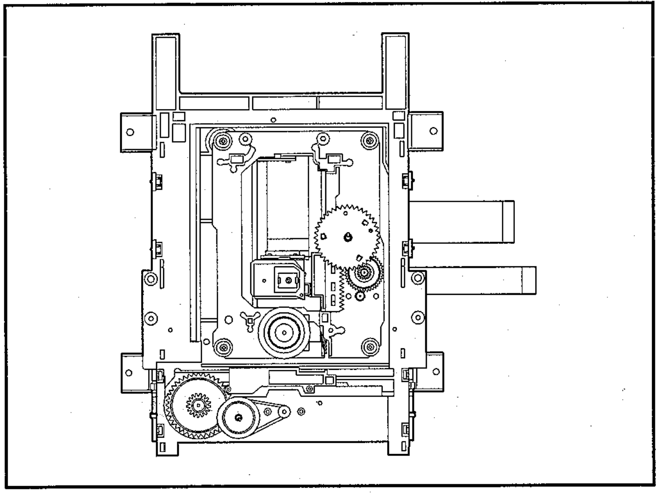
1. Deck Mechanism Exploded View .... 5-5

# DECK MECHANISM PARTS LOCATION

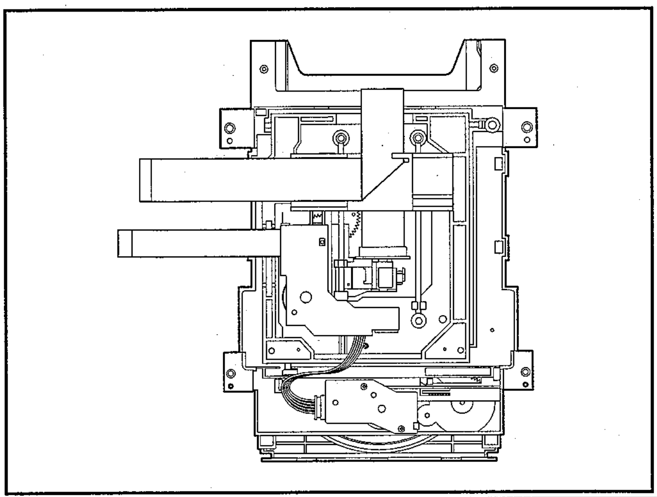
## • Top View (With Tray)



## • Top View (Without Tray)



## • Bottom View



| Procedure | | Parts | Fixing Type | Disassembly | Figure |
|---|---|---|---|---|---|
| Starting No. | | | | | |
| | 1 | Holder Clamp | 2 Screws,<br>2 Locking Tabs | | 5-1 |
| 1 | 2 | Clamp Assembly Disc | | | 5-1 |
| 1, 2 | 3 | Plate Clamp | | | 5-1 |
| 1, 2, 3 | 4 | Magnet Clamp | | | 5-1 |
| 1, 2, 3, 4 | 5 | Clamp Upper | | | 5-1 |
| 1 | 6 | Tray Disc | | | 5-2 |
| 1, 6 | 7 | Base Assembly Sled | | | 5-3 |
| 1, 2, 6 | 8 | Gear Assembly Feed | 4 Screws,<br>1 Connector<br>1 Locking Tabs | | 5-3 |
| 1, 2, 6, 8 | 9 | Gear Middle | | | 5-3 |
| 1, 2, 6, 8, 9 | 10 | Gear Assembly Rack | 1 Screw | | 5-3 |
| 1, 2, 7 | 11 | Rubber Rear | | | 5-3 |
| 1, 2, 7 | 12 | Frame Assembly Up/Down | 1 Screw | Bottom | 5-4 |
| 1, 2 | 13 | Belt Loading | 1 Locking Tab | | 5-4 |
| 1, 2 ,13 | 14 | Gear Pulley | | | 5-4 |
| 1, 2, 13, 14 | 15 | Gear Loading | 1 Locking Tab | | 5-4 |
| 1, 2, 7, 12, 13, 14 | 16 | Guide Up/Down | | | 5-4 |
| 1, 2, 13 | 17 | PWB Assembly Loading | 1 Locking Tab<br>1 Hook<br>2Screw | Bottom | 5-4 |
| 1, 2, 7, 12, 13, 14, 15, 16, 17 | 18 | Base Main | 2 Locking Tabs | | 5-4 |

**Note**

When reassembling, perform the procedure in reverse order.

The "Bottom" on Disassembly column of above Table indicates the part should be disassembled at the Bottom side.

# DECK MECHANISM DISASSEMBLY

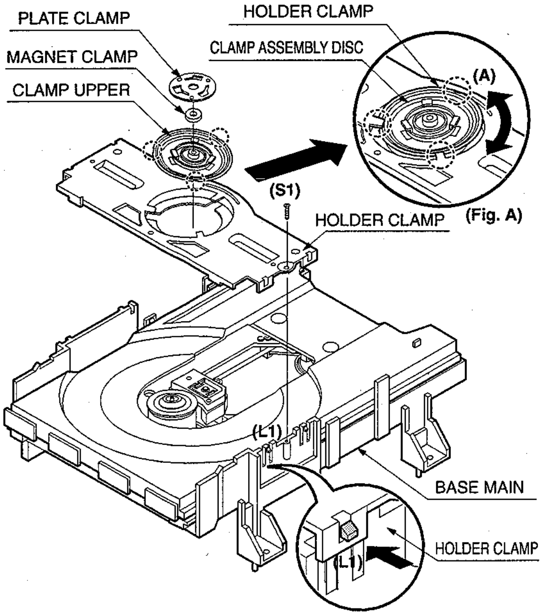


PLATE CLAMP
HOLDER CLAMP
MAGNET CLAMP
CLAMP ASSEMBLY DISC
CLAMP UPPER
(A)
(S1)
HOLDER CLAMP
(Fig. A)
(L1)
BASE MAIN
(L1)
HOLDER CLAMP

Fig. 5-1

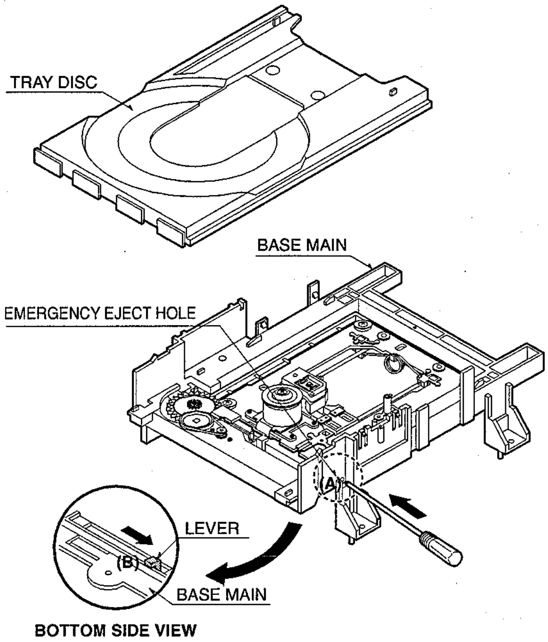

TRAY DISC
BASE MAIN
EMERGENCY EJECT HOLE
(A)
LEVER
(B)
BASE MAIN
BOTTOM SIDE VIEW

Fig. 5-2

## 1. Holder Clamp (Fig. 5-1)

1) Release 1 Screws(S1).
2) Unhook 2 Locking Tabs(L1).
3) Lift up the Holder Clamp and then separate it from the Base Main.

### 1-1. Clamp Assembly Disc

1) Place the Clamp Assembly Disc as Fig. (A)
2) Lift up the Clamp Assembly Disc in direction of arrow(A).
3) Separate the Clamp Assembly Disc from the Holder Clamp.

### 1-1-1. Plate Clamp

1) Turn the Plate Clamp to counterclockwise direction and then lift up the Plate Clamp.

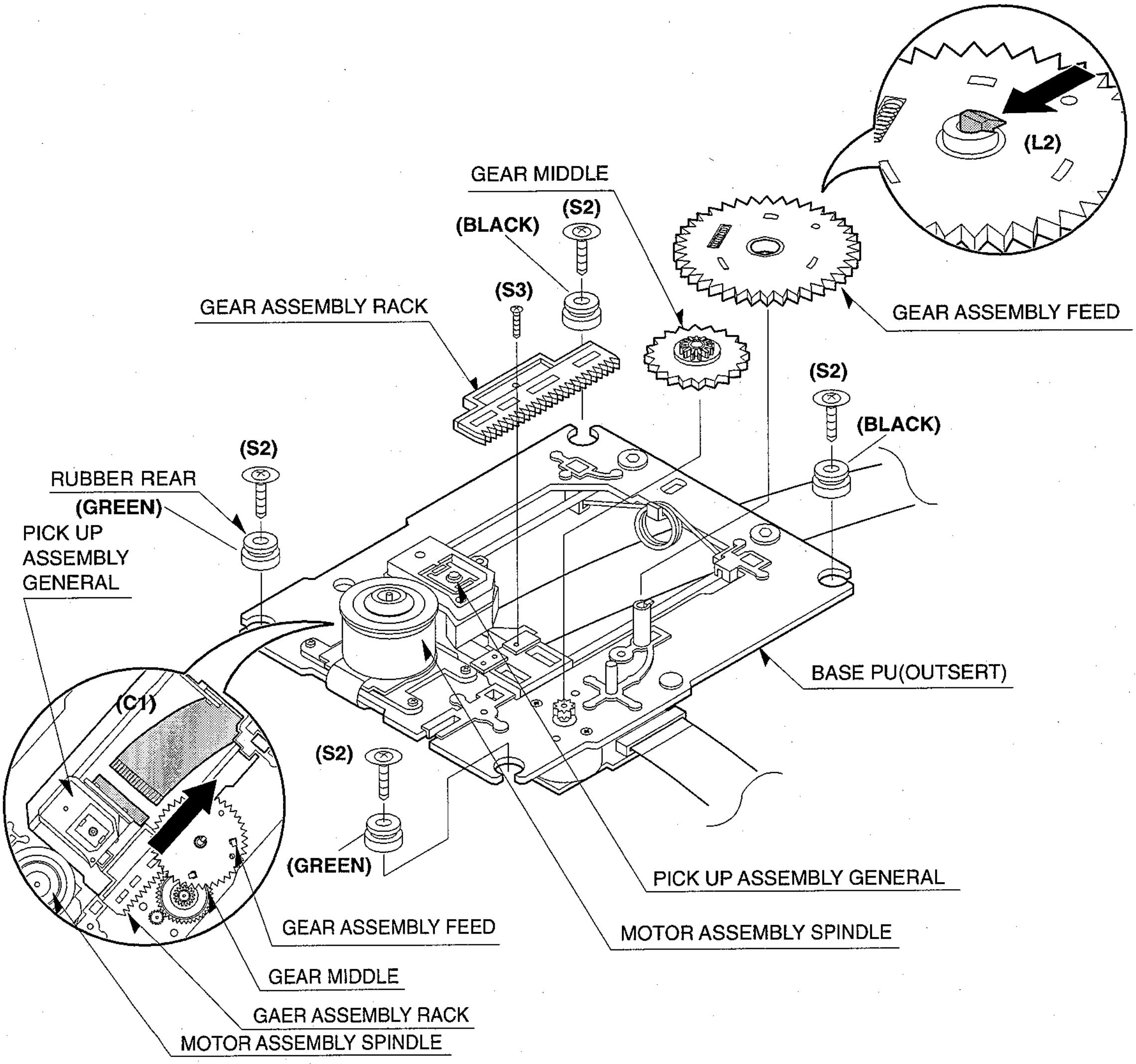
### 1-1-2. Magnet Clamp

### 1-1-3. Clamp Upper

## 2. Tray Disc (Fig. 5-2)

1) Insert and push a Driver in the emergency eject hole(A) at the right side, or put the Driver on the Lever(B) of the Gear Emergency and pull the Lever(B) in direction of arrow so that the Tray Disc is ejected about 15~20mm.
2) Pull the Tray Disc until it is separated from the Base Main completely.

# DECK MECHANISM DISASSEMBLY



(L2)
GEAR MIDDLE
(S2)
(BLACK)
(S3)
GEAR ASSEMBLY RACK
GEAR ASSEMBLY FEED
(S2)
(BLACK)
(S2)
RUBBER REAR
(GREEN)
PICK UP
ASSEMBLY
GENERAL
(C1)
(S2)
(GREEN)
BASE PU(OUTSERT)
PICK UP ASSEMBLY GENERAL
GEAR ASSEMBLY FEED
MOTOR ASSEMBLY SPINDLE
GEAR MIDDLE
GAER ASSEMBLY RACK
MOTOR ASSEMBLY SPINDLE

Fig. 5-3

## 3. Base Assembly Sled (Fig. 5-3)

1) Release 4 Screw(S2).
2) Disconnect the FFC Connector(C1)

### 3-1. Gear Assembly Feed

1) Unhook the Locking Tab(L2) in direction of arrow.

### 3-2. Gear Middle

### 3-3. Gear Assembly Rack

1) Release the Scerw(S3)

## 4. Rubber Rear (Fig. 5-3)

# DECK MECHANISM DISASSEMBLY

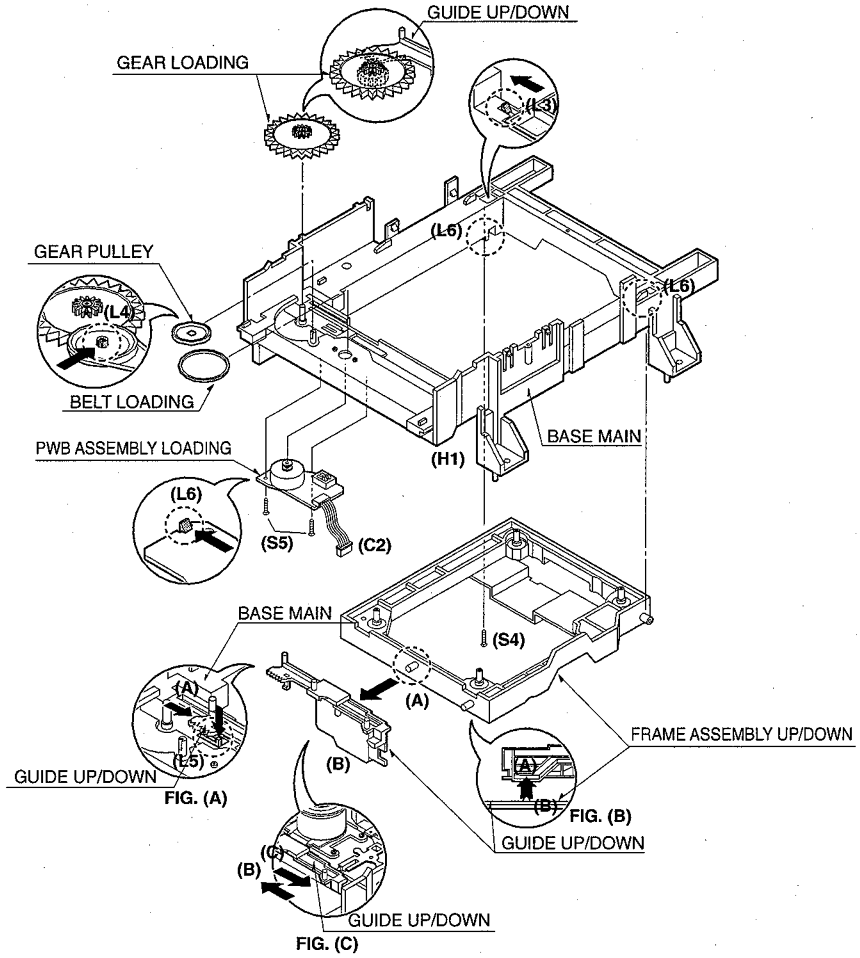

GUIDE UP/DOWN
GEAR LOADING
(L3)
(L6)
(L6)
GEAR PULLEY
(L4)
BELT LOADING
PWB ASSEMBLY LOADING
(H1)
BASE MAIN
(L6)
(S5)
(C2)
BASE MAIN
(S4)
(A)
(A)
FRAME ASSEMBLY UP/DOWN
(L5)
GUIDE UP/DOWN
FIG. (A)
(B)
(A)
(B)
FIG. (B)
GUIDE UP/DOWN
(C)
(B)
GUIDE UP/DOWN
FIG. (C)

Fig. 5-4

## 5. Frame Assembly Up/Down (Fig. 5-4)

**Note**

Put the Base Main face down(Bottom Side)

1) Release the Screw(S4)
2) Unlock the Locking Tab(L3) in direction of arrow and then lift up the Frame Assembly Up/Down to separate it from the Base Main.

**Note**

- When reassembling move the Guide Up/Down in direction of arrow(C) until it is positioned as Fig.(C).
- When reassembling insert (A) portion of the Frame Assembly Up/Down in the (B) portion of the Guide Up/Down as Fig.(B)

## 6. Belt Loading(Fig. 5-4)

**Note**

Put the Base Main on original position(Top Side)

## 7. Gear pulley (Fig. 5-4)

1) Unlock the Locking Tab(L4) in direction of arrow(B) and then separate the Gear Pulley from the Base Main.

## 8. Gear Loading (Fig. 5-4)

## 9. Guide Up/Down (Fig. 5-4)

1) Move the Guide Up/Down in direction of arrow(A) as Fig.(A)
2) Push the Locking Tab(L5) down and then lift up the Guide Up/Down to separate it from the Base Main.

**Note**

When reassembling place the Guide Up/Down as Fig.(C) and move it in direction arrow(B) until it is locked by the Locking Tab(L5). And confirm the Guide Up/Down as Fig.(A)

## 10. PWB Assembly Loading (Fig. 5-4)

**Note**

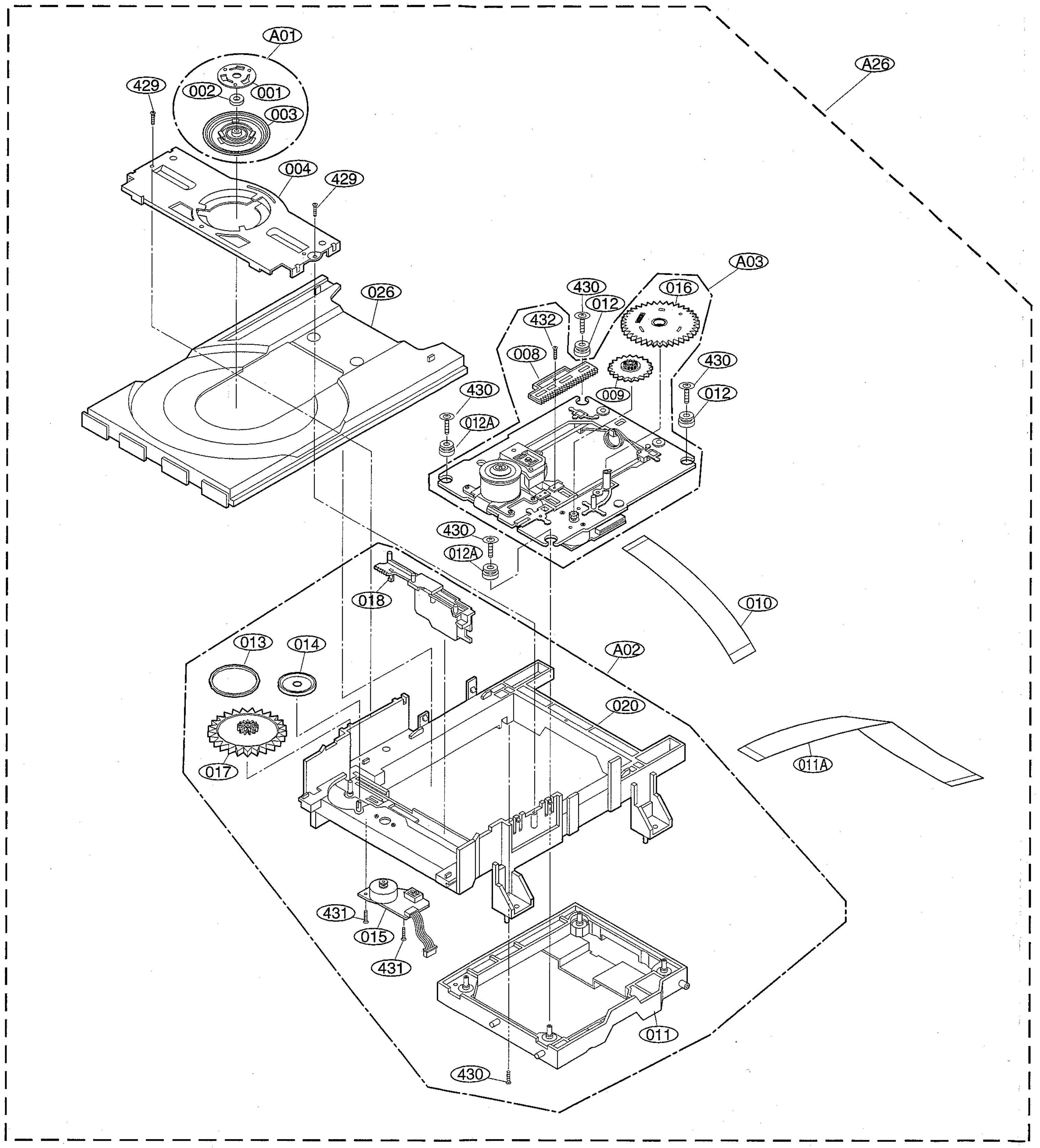
Put the Base Main face down(Bottom Side)

1) Release 2 Screws(S5)
2) Unkool the Loading Motor Connector (C2) from the Hook (H1) on the Base Main.
3) Unlock 2 Locking Tabs(L6) and separate the PWB Assembly Loading from the Base Main.

## 11. Base Main(Fig. 5-4)

# EXPLODED VIEWS

## 1. Deck Mechanism Exploded View


A01
429
002
001
003
004
429
A26
026
A03
430
016
012
432
008
430
012
009
430
012A
430
012A
018
010
013
014
A02
020
011A
017
431
015
431
011
430

NOTES) ⚠ Warning
Parts that are shaded are critical
With respect to risk of fire or
electricial shock.

# SECTION 6 REPLACEMENT PARTS LIST

MODEL : V640GP(DVD-VCR 4330) QUELLE

NSP : Not available as service parts.

RUN DATE : 09-APRIL-03

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | *** INDIVIDUAL PARTS *** | | | | |
| | | 250 | 3110R-V004B | CASE | (COMBI-2) PRESS A288G-HOLE-7EA | NSP |
| | | 260 | 3210R-V002B | FRAME | COMB-2 MOLD HIPS 60HR-BK | |
| | | 276 | 4930R-0298B | HOLDER | VCR - TIMER PWB(D+V-RIB CUTTIN | |
| | | 285 | 3580R-T087A | DOOR,CASE | TRAY (VC66) | |
| ⚠ | | 300 | 6410RCHP02B | POWER CORD | HIT-102/H0VHH2-F(WITH CORE) HI | |
| | | 330 | 3140R-V001B | CHASSIS | COMBI-2 PRESS PAL TYPE | |
| | | 452 | 353-051A | SCREW | SPECIAL | |
| | | 457 | 353-051E | SCREW | SPECIAL (3X12) | |
| | | 462 | 353-051G | SCREW,DRAWING | + 2 D3.0 L8.0 MSWR3/FN TB ROUN | |
| | | 465 | 353-046K | SCREW | SPECIAL (3X10 B.K) | |
| | | *** PACKING ACCESSORY *** | | | | |
| | | 801 | 3835RP0089R | INSTRUCTION ASSEMBLY | VCR V640GP.NA3GQUS | |
| | | 802 | 3890R-H814Z | BOX | VC640GP NA3GQUS SW3-A 1.118 1 | |
| | | 803 | 3920R-E080A | PACKING,CASING | VC6000_S 0.02 150 EPS 4 1 1 | |
| | | 804 | 292-053B | BAG | SOFT(MIDI) | NSP |
| | | 808 | 534-008C | BATTERY,MANGANESE | AAAM(R03) SEOTONG 1-5 V - 1PA | |
| | | *** REMOTE CONTROLLER *** | | | | |
| | | 900 | 6711R1P065E | REMOTE CONTROLLER ASSEMBLY | N6 VC672CP NA5ILB NO BRAND W/S | |
| | | *** PANEL ASSEMBLY , FRONT *** | | | | |
| | | A43 | 3721R-F365B | PANEL ASSEMBLY,FRONT | VCR V640GP NA3GQUS UNIVERSUM | |
| | | 274 | 3300R-M184A | PLATE | VCR - JACK GND(HOME THEATER CO | |
| | | 280 | 3720R-F731B | PANEL,VIDEO | VCR V640GP NA3GQUS MOLD UNIVER | NSP |
| | | 283 | 3580R-V074B | DOOR,CASE | VCR V027 V640GP NA3GQUS MOLD A | |
| | | 284 | 442-681A | SPRING | DOOR | |
| | | *** CABLE ASSEMBLY , RF *** | | | | |
| | | 810 | 6851RP0003B | CABLE ASSY,RF | CABLE ASSY,RF/SCART/RCA USING | |
| | | 806 | 6850R-CAA26 | CABLE,COAXIAL | 1200M/M PAL-PAL DOUBLE SHIELD | |
| | | 811 | 6611R1G001A | PLUG ASSY | 1WAY YELLOW GLOBAL | |
| | | 812 | 6611R2G001A | PLUG ASSY | 2WAY RED/WHITE GLOBAL | |
| | | *** DECK ASSEMBLY , VIDEO (DVD MD) *** | | | | |
| | | A26 | 6721RF0353B | DECK ASSEMBLY,VIDEO | DECK/MECHA DP5-4V(DVD+VCR) DI, | NSP |
| | | A01 | 4861R-0015A | CLAMP ASSEMBLY | DISC(DP-5) DI | |
| | | A02 | 3041R-M004A | BASE ASSEMBLY | MAIN (DP4) DI-IDECK | |
| | | A03 | 3041R-M005B | BASE ASSEMBLY | SLED (DP5-4V-SHIELD) DI | |
| | | 001 | 3300R-0547A | PLATE | CLAMP | NSP |
| | | 002 | 5016H-1016B | MAGNET | CLAMP(LDM-R608,10*5,1*1.5T) | NSP |
| | | 003 | 4860R-0006A | CLAMP | UPPER | NSP |
| | | 004 | 4930R-0171A | HOLDER | CLAMP | |
| | | 008 | 4470R-0047B | GEAR | ASSY RACK (DI) | |
| | | 009 | 4470R-0053A | GEAR | MIDDLE | |
| | | 010 | 6850R-GK22Z | CABLE,FLAT | P=1.0 FFC UL2896(0.05X0.65) 11 | |
| | | 011 | 3210R-0036A | FRAME | UP/D | |
| | | 011A | 6850R-JW14B | CABLE,FLAT | P=1.0 FFC UL2896(0.035X0.7) 23 | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | C251 | 0CH1105D942 | CAPACITOR,CHIP[CERAMIC M/L HD | 1UF 10V Z Y5V(F) 1508 R/TP | |
| | | C252 | 0CH4100K112 | CHIP CAPA CERAMIC M/L T.C F/S | 10P 50V D COG 1.6X0.8 R/TP | |
| | | C253 | 0CH1105D942 | CAPACITOR,CHIP[CERAMIC M/L HD | 1UF 10V Z Y5V(F) 1508 R/TP | |
| | | C254 | 0CH1105D942 | CAPACITOR,CHIP[CERAMIC M/L HD | 1UF 10V Z Y5V(F) 1508 R/TP | |
| | | C255 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C258 | 0CH1105D942 | CAPACITOR,CHIP[CERAMIC M/L HD | 1UF 10V Z Y5V(F) 1508 R/TP | |
| | | C261 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C262 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C263 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C264 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C265 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C272 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C273 | 0CH1225F944 | CAPACITOR,FIXED CERAMIC(Temp.c | 2.2UF 16V 80%,-20% Y5V(F) 3216 | |
| | | C274 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C277 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C278 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C279 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C280 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C281 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C282 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C284 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C285 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C286 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C287 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C288 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C289 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C290 | 0CH4180K412 | CAPACITOR,CHIP[CERAMIC M/L TC | 18P 50V J COG 1.6X0.8 R/TP | |
| | | C291 | 0CH4180K412 | CAPACITOR,CHIP[CERAMIC M/L TC | 18P 50V J COG 1.6X0.8 R/TP | |
| | | C292 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C293 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C294 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C295 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C296 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C297 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C298 | 0CE4775C638 | CAPACITOR,FIXED ELECTROLYTIC | 470UF SR,SV 6.3V 20% FM5 TP 5 | |
| | | C299 | 0CH4220K412 | CAPA,CHIP CERAMIC M/L T.C F/S | 22P 50V J COG 1.6X0.8 R/TP | |
| | | C2A0 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C2A3 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C2A4 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C2A5 | 0CH1683F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.068UF 16V 80%,-20% Y5V(F) 16 | |
| | | C2A6 | 0CH1102K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 1000PF 50V 10% X7R(X) 1608 R/T | |
| | | C2A7 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C2A8 | 0CH1152K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 1500PF 50V 10% X7R(X) 1608 R/T | |
| | | C2A9 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C2B3 | 0CH1392K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 3900PF 50V K Z5U(E) 1608 R/TP | |
| | | C2B4 | 0CH1683F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.068UF 16V 80%,-20% Y5V(F) 16 | |
| | | C2B5 | 0CH1333K562 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.033UF 50V K X7R(X) 1508 R/TP | |
| | | C2B9 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C2C1 | 0CH1103K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.01UF 50V 10% X7R(X) 1608 R/T | |
| | | C2C2 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C2C4 | 0CH1102K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 1000PF 50V 10% X7R(X) 1608 R/T | |
| | | C2C5 | 0CH1332K562 | CAPACITOR,CHIP[CERAMIC M/L HD | 3300P 50V K X7R 1.6X0.8 R/TP | |
| | | C2C6 | 0CH1102K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 1000PF 50V 10% X7R(X) 1608 R/T | |
| | | C2C8 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C2C9 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C2D0 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | C413 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C414 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C415 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C416 | 0CH1102K512 | CAPACITOR,FIXED CERAMIC(Temp.c | 1000PF 50V 10% B(5YP) 1608 R/T | |
| | | C417 | 0CH4271K412 | CAPACITOR,FIXED CERAMIC(HIGH D | 270PF 50V 5% NP0 1608 R/TP | |
| | | C418 | 0CH1392K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 3900PF 50V K Z5U(E) 1608 R/TP | |
| | | C419 | 0CE2264F638 | CAPACITOR,ELECTROLYTIC | 22M SRA 16V M FM5 TP(5) | |
| | | C420 | 0CH1392K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 3900PF 50V K Z5U(E) 1608 R/TP | |
| | | C421 | 0CE2264F638 | CAPACITOR,ELECTROLYTIC | 22M SRA 16V M FM5 TP(5) | |
| | | C422 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C423 | 0CH4271K412 | CAPACITOR,FIXED CERAMIC(HIGH D | 270PF 50V 5% NP0 1608 R/TP | |
| | | C424 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C425 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C501 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C502 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C503 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C504 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C506 | 0CH1225F944 | CAPACITOR,FIXED CERAMIC(Temp.c | 2.2UF 16V 80%,-20% Y5V(F) 3216 | |
| | | C507 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C508 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C509 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C510 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C511 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C512 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C513 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C514 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C515 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C516 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C517 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C518 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C519 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C520 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C521 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C522 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C523 | 0CH1225F944 | CAPACITOR,FIXED CERAMIC(Temp.c | 2.2UF 16V 80%,-20% Y5V(F) 3216 | |
| | | C525 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C526 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C527 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C528 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C529 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C530 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C531 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C532 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C533 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C534 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C535 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C536 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C538 | 0CH1225F944 | CAPACITOR,FIXED CERAMIC(Temp.c | 2.2UF 16V 80%,-20% Y5V(F) 3216 | |
| | | C540 | 0CH4220K412 | CAPA,CHIP CERAMIC M/L T.C F/S | 22P 50V J COG 1.6X0.8 R/TP | |
| | | C541 | 0CH4220K412 | CAPA,CHIP CERAMIC M/L T.C F/S | 22P 50V J COG 1.6X0.8 R/TP | |
| | | C542 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C543 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |
| | | C544 | 0CH1225F944 | CAPACITOR,FIXED CERAMIC(Temp.c | 2.2UF 16V 80%,-20% Y5V(F) 3216 | |
| | | C546 | 0CH4221K412 | CAPACITOR,CHIP[CERAMIC M/L TC | 220P 50V J COG 1.6X0.8 R/TP | |
| | | C549 | 0CH4221K412 | CAPACITOR,CHIP[CERAMIC M/L TC | 220P 50V J COG 1.6X0.8 R/TP | |
| | | C550 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 | |

NOTES) ⚠ Warning
Parts that are shaded are critical
With respect to risk of fire or
electricial shock.

# SECTION 6 REPLACEMENT PARTS LIST

**MODEL : V640GP(DVD-VCR 4330) QUELLE** **NSP : Not available as service parts.**

**RUN DATE : 09-APRIL-03**

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | *** INDIVIDUAL PARTS *** | | | | |
| | | 250 | 3110R-V004B | CASE | (COMBI-2) PRESS A288G-HOLE-7EA | NSP |
| | | 260 | 3210R-V002B | FRAME | COMB-2 MOLD HIPS 60HR-BK | |
| | | 276 | 4930R-0298B | HOLDER | VCR - TIMER PWB(D+V-RIB CUTTIN | |
| | | 285 | 3580R-T087A | DOOR,CASE | TRAY (VC66) | |
| ⚠ | | 300 | 6410RCHP02B | POWER CORD | HIT-102/H0VHH2-F(WITH CORE) HI | |
| | | 330 | 3140R-V001B | CHASSIS | COMBI-2 PRESS PAL TYPE | |
| | | 452 | 353-051A | SCREW | SPECIAL | |
| | | 457 | 353-051E | SCREW | SPECIAL (3X12) | |
| | | 462 | 353-051G | SCREW,DRAWING | + 2 D3.0 L8.0 MSWR3/FN TB ROUN | |
| | | 465 | 353-046K | SCREW | SPECIAL (3X10 B.K) | |
| | | *** PACKING ACCESSORY *** | | | | |
| | | 801 | 3835RP0089R | INSTRUCTION ASSEMBLY | VCR V640GP.NA3GQUS | |
| | | 802 | 3890R-H814Z | BOX | VC640GP NA3GQUS SW3-A 1.118 1 | |
| | | 803 | 3920R-E080A | PACKING,CASING | VC6000_S 0.02 150 EPS 4 1 1 | |
| | | 804 | 292-053B | BAG | SOFT(MIDI) | NSP |
| | | 808 | 534-008C | BATTERY,MANGANESE | AAAM(R03) SEOTONG 1-5 V - 1PA | |
| | | *** REMOTE CONTROLLER *** | | | | |
| | | 900 | 6711R1P065E | REMOTE CONTROLLER ASSEMBLY | N6 VC672CP NA5ILB NO BRAND W/S | |
| | | *** PANEL ASSEMBLY , FRONT *** | | | | |
| | | A43 | 3721R-F365B | PANEL ASSEMBLY,FRONT | VCR V640GP NA3GQUS UNIVERSUM | |
| | | 274 | 3300R-M184A | PLATE | VCR - JACK GND(HOME THEATER CO | |
| | | 280 | 3720R-F731B | PANEL,VIDEO | VCR V640GP NA3GQUS MOLD UNIVER | NSP |
| | | 283 | 3580R-V074B | DOOR,CASE | VCR V027 V640GP NA3GQUS MOLD A | |
| | | 284 | 442-681A | SPRING | DOOR | |
| | | *** CABLE ASSEMBLY , RF *** | | | | |
| | | 810 | 6851RP0003B | CABLE ASSY,RF | CABLE ASSY,RF/SCART/RCA USING | |
| | | 806 | 6850R-CAA26 | CABLE,COAXIAL | 1200M/M PAL-PAL DOUBLE SHIELD | |
| | | 811 | 6611R1G001A | PLUG ASSY | 1WAY YELLOW GLOBAL | |
| | | 812 | 6611R2G001A | PLUG ASSY | 2WAY RED/WHITE GLOBAL | |
| | | *** DECK ASSEMBLY , VIDEO (DVD MD) *** | | | | |
| | | A26 | 6721RF0353B | DECK ASSEMBLY,VIDEO | DECK/MECHA DP5-4V(DVD+VCR) DI, | NSP |
| | | A01 | 4861R-0015A | CLAMP ASSEMBLY | DISC(DP-5) DI | |
| | | A02 | 3041R-M004A | BASE ASSEMBLY | MAIN (DP4) DI-IDECK | |
| | | A03 | 3041R-M005B | BASE ASSEMBLY | SLED (DP5-4V-SHIELD) DI | |
| | | 001 | 3300R-0547A | PLATE | CLAMP | NSP |
| | | 002 | 5016H-1016B | MAGNET | CLAMP(LDM-R608,10*5,1*1.5T) | NSP |
| | | 003 | 4860R-0006A | CLAMP | UPPER | NSP |
| | | 004 | 4930R-0171A | HOLDER | CLAMP | |
| | | 008 | 4470R-0047B | GEAR | ASSY RACK (DI) | |
| | | 009 | 4470R-0053A | GEAR | MIDDLE | |
| | | 010 | 6850R-GK22Z | CABLE,FLAT | P=1.0 FFC UL2896(0.05X0.65) 11 | |
| | | 011 | 3210R-0036A | FRAME | UP/D | |
| | | 011A | 6850R-JW14B | CABLE,FLAT | P=1.0 FFC UL2896(0.035X0.7) 23 | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | C251 | 0CH1105D942 | CAPACITOR,CHIP[CERAMIC M/L HD | 1UF 10V Z Y5V(F) 1508 R/TP | |
| | | C252 | 0CH4100K112 | CHIP CAPA CERAMIC M/L T.C F/S | 10P 50V D COG 1.6X0.8 R/TP | |
| | | C253 | 0CH1105D942 | CAPACITOR,CHIP[CERAMIC M/L HD | 1UF 10V Z Y5V(F) 1508 R/TP | |
| | | C254 | 0CH1105D942 | CAPACITOR,CHIP[CERAMIC M/L HD | 1UF 10V Z Y5V(F) 1508 R/TP | |
| | | C255 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C258 | 0CH1105D942 | CAPACITOR,CHIP[CERAMIC M/L HD | 1UF 10V Z Y5V(F) 1508 R/TP | |
| | | C261 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C262 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C263 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C264 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C265 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C272 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C273 | 0CH1225F944 | CAPACITOR,FIXED CERAMIC(Temp.c | 2.2UF 16V 80%,-20% Y5V(F) 3216 | |
| | | C274 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C277 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C278 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C279 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C280 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C281 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C282 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C284 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C285 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C286 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C287 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C288 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C289 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C290 | 0CH4180K412 | CAPACITOR,CHIP[CERAMIC M/L TC | 18P 50V J COG 1.6X0.8 R/TP | |
| | | C291 | 0CH4180K412 | CAPACITOR,CHIP[CERAMIC M/L TC | 18P 50V J COG 1.6X0.8 R/TP | |
| | | C292 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C293 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C294 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C295 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C296 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C297 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C298 | 0CE4775C638 | CAPACITOR,FIXED ELECTROLYTIC | 470UF SR,SV 6.3V 20% FM5 TP 5 | |
| | | C299 | 0CH4220K412 | CAPA,CHIP CERAMIC M/L T.C F/S | 22P 50V J COG 1.6X0.8 R/TP | |
| | | C2A0 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C2A3 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C2A4 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C2A5 | 0CH1683F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.068UF 16V 80%,-20% Y5V(F) 16 | |
| | | C2A6 | 0CH1102K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 1000PF 50V 10% X7R(X) 1608 R/T | |
| | | C2A7 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C2A8 | 0CH1152K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 1500PF 50V 10% X7R(X) 1608 R/T | |
| | | C2A9 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C2B3 | 0CH1392K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 3900PF 50V K Z5U(E) 1608 R/TP | |
| | | C2B4 | 0CH1683F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.068UF 16V 80%,-20% Y5V(F) 16 | |
| | | C2B5 | 0CH1333K562 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.033UF 50V K X7R(X) 1508 R/TP | |
| | | C2B9 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C2C1 | 0CH1103K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.01UF 50V 10% X7R(X) 1608 R/T | |
| | | C2C2 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C2C4 | 0CH1102K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 1000PF 50V 10% X7R(X) 1608 R/T | |
| | | C2C5 | 0CH1332K562 | CAPACITOR,CHIP[CERAMIC M/L HD | 3300P 50V K X7R 1.6X0.8 R/TP | |
| | | C2C6 | 0CH1102K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 1000PF 50V 10% X7R(X) 1608 R/T | |
| | | C2C8 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP | |
| | | C2C9 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C2D0 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
|  |  | C413 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) |  |
|  |  | C414 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP |  |
|  |  | C415 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) |  |
|  |  | C416 | 0CH1102K512 | CAPACITOR,FIXED CERAMIC(Temp.c | 1000PF 50V 10% B(5YP) 1608 R/T |  |
|  |  | C417 | 0CH4271K412 | CAPACITOR,FIXED CERAMIC(HIGH D | 270PF 50V 5% NP0 1608 R/TP |  |
|  |  | C418 | 0CH1392K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 3900PF 50V K Z5U(E) 1608 R/TP |  |
|  |  | C419 | 0CE2264F638 | CAPACITOR,ELECTROLYTIC | 22M SRA 16V M FM5 TP(5) |  |
|  |  | C420 | 0CH1392K562 | CAPACITOR,FIXED CERAMIC(Temp.c | 3900PF 50V K Z5U(E) 1608 R/TP |  |
|  |  | C421 | 0CE2264F638 | CAPACITOR,ELECTROLYTIC | 22M SRA 16V M FM5 TP(5) |  |
|  |  | C422 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) |  |
|  |  | C423 | 0CH4271K412 | CAPACITOR,FIXED CERAMIC(HIGH D | 270PF 50V 5% NP0 1608 R/TP |  |
|  |  | C424 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP |  |
|  |  | C425 | 0CH1104K942 | CAPACITOR,CHIP[CERAMIC M/L HD | 0.1UF 50V Z Y5V(F) 1508 R/TP |  |
|  |  | C501 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) |  |
|  |  | C502 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C503 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C504 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) |  |
|  |  | C506 | 0CH1225F944 | CAPACITOR,FIXED CERAMIC(Temp.c | 2.2UF 16V 80%,-20% Y5V(F) 3216 |  |
|  |  | C507 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) |  |
|  |  | C508 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C509 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C510 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C511 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C512 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C513 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C514 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C515 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C516 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C517 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C518 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C519 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C520 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C521 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C522 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C523 | 0CH1225F944 | CAPACITOR,FIXED CERAMIC(Temp.c | 2.2UF 16V 80%,-20% Y5V(F) 3216 |  |
|  |  | C525 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C526 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C527 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C528 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C529 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C530 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C531 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C532 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C533 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C534 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C535 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C536 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C538 | 0CH1225F944 | CAPACITOR,FIXED CERAMIC(Temp.c | 2.2UF 16V 80%,-20% Y5V(F) 3216 |  |
|  |  | C540 | 0CH4220K412 | CAPA,CHIP CERAMIC M/L T.C F/S | 22P 50V J COG 1.6X0.8 R/TP |  |
|  |  | C541 | 0CH4220K412 | CAPA,CHIP CERAMIC M/L T.C F/S | 22P 50V J COG 1.6X0.8 R/TP |  |
|  |  | C542 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C543 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |
|  |  | C544 | 0CH1225F944 | CAPACITOR,FIXED CERAMIC(Temp.c | 2.2UF 16V 80%,-20% Y5V(F) 3216 |  |
|  |  | C546 | 0CH4221K412 | CAPACITOR,CHIP[CERAMIC M/L TC | 220P 50V J COG 1.6X0.8 R/TP |  |
|  |  | C549 | 0CH4221K412 | CAPACITOR,CHIP[CERAMIC M/L TC | 220P 50V J COG 1.6X0.8 R/TP |  |
|  |  | C550 | 0CH1104F942 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.1UF 16V 80%,-20% Y5V(F) 1608 |  |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | Q2A1 | 0TR103709BB | TRANSISTOR,BIPOLARS | 2SA1037K-Q CHIP TP ROHM - - | |
| | | Q2A2 | 0TR103709BB | TRANSISTOR,BIPOLARS | 2SA1037K-Q CHIP TP ROHM - - | |
| | | Q2A5 | 0TR388209AA | TRANSISTOR,BIPOLARS | CHIP KTC3882 SOT-23 TP KEC - - | |
| | | Q2A6 | 0TR388209AA | TRANSISTOR,BIPOLARS | CHIP KTC3882 SOT-23 TP KEC - - | |
| | | Q2M1 | 0TR124009AP | TRANSISTOR,BIPOLARS | DTC124EK TP ROHM KOREA SOT23 3 | |
| | | Q401 | 0TR103709BB | TRANSISTOR,BIPOLARS | 2SA1037K-Q CHIP TP ROHM - - | |
| | | Q404 | 0TR103009AC | TRANSISTOR | KRA103S-T1(PC)22-22 CHIP KEC | |
| | | Q405 | 0TR103009AC | TRANSISTOR | KRA103S-T1(PC)22-22 CHIP KEC | |
| | | R201 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R202 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R203 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R204 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R207 | 0RH1004C622 | RESISTOR,METAL GLAZED(CHIP) | 1M OHM 1 / 16 W 1608 5.00% D | |
| | | R217 | 0RH0102C622 | RESISTOR,METAL GLAZED(CHIP) | 10 OHM 1 / 16 W 1608 5.00% D | |
| | | R218 | 0RH4700C622 | RESISTOR,METAL GLAZED(CHIP) | 470 OHM 1 / 16 W 1608 5.00% D | |
| | | R219 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D | |
| | | R220 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D | |
| | | R230 | 0RH1000C622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D | |
| | | R231 | 0RH1000C622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D | |
| | | R232 | 0RH1000C622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D | |
| | | R233 | 0RH1000C622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D | |
| | | R234 | 0RH1000C622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D | |
| | | R235 | 0RH1000C622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D | |
| | | R236 | 0RH1000C622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D | |
| | | R237 | 0RH1000C622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D | |
| | | R239 | 0RH2200C622 | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 16 W 1608 5.00% D | |
| | | R240 | 0RH2200C622 | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 16 W 1608 5.00% D | |
| | | R241 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R242 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R243 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R252 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R269 | 0RH0222C622 | RESISTOR,METAL GLAZED(CHIP) | 22 OHM 1 / 16 W 1608 5.00% D | |
| | | R273 | 0RH1501C622 | RESISTOR,METAL GLAZED(CHIP) | 1.5K OHM 1 / 16 W 1608 5.00% D | |
| | | R274 | 0RH6200C622 | RESISTOR,METAL GLAZED(CHIP) | 620 OHM 1 / 16 W 1608 5.00% D | |
| | | R275 | 0RH1501C622 | RESISTOR,METAL GLAZED(CHIP) | 1.5K OHM 1 / 16 W 1608 5.00% D | |
| | | R276 | 0RH9100C622 | RESISTOR,METAL GLAZED(CHIP) | 910 OHM 1 / 16 W 1608 5.00% D | |
| | | R277 | 0RH1500C622 | RESISTOR,METAL GLAZED(CHIP) | 150 OHM 1 / 16 W 1608 5.00% D | |
| | | R278 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R279 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R281 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R290 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R291 | 0RH1000C622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D | |
| | | R292 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D | |
| | | R293 | 0RH2200C622 | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 16 W 1608 5.00% D | |
| | | R294 | 0RH2200C622 | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 16 W 1608 5.00% D | |
| | | R2A1 | 0RH0912C622 | RESISTOR,METAL GLAZED(CHIP) | 91 OHM 1 / 16 W 1608 5.00% D | |
| | | R2A2 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R2A6 | 0RH1202C622 | RESISTOR,METAL GLAZED(CHIP) | 12K OHM 1 / 16 W 1608 5.00% D | |
| | | R2A9 | 0RH5602C622 | RESISTOR,METAL GLAZED(CHIP) | 56K OHM 1 / 16 W 1608 5.00% D | |
| | | R2B0 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R2B1 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R2B2 | 0RH0182C622 | RESISTOR,METAL GLAZED(CHIP) | 18 OHM 1 / 16 W 1608 5.00% D | |
| | | R2B3 | 0RH0182C622 | RESISTOR,METAL GLAZED(CHIP) | 18 OHM 1 / 16 W 1608 5.00% D | |
| | | R2B4 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R2B5 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R2B6 | 0RH0182C622 | RESISTOR,METAL GLAZED(CHIP) | 18 OHM 1 / 16 W 1608 5.00% D | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | R2B7 | 0RH0182C622 | RESISTOR,METAL GLAZED(CHIP) | 18 OHM 1 / 16 W 1608 5.00% D | |
| | | R2B8 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R2C0 | 0RH5601C622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D | |
| | | R2C4 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R2C5 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R2C6 | 0RH5601C622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D | |
| | | R2C7 | 0RH5601C622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D | |
| | | R2C8 | 0RH5601C622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D | |
| | | R2C9 | 0RH5601C622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D | |
| | | R2D0 | 0RH5601C622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D | |
| | | R2D1 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R2D2 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R2D3 | 0RH5601C622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D | |
| | | R2D4 | 0RH5601C622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D | |
| | | R2D5 | 0RH6801C622 | RESISTOR,METAL GLAZED(CHIP) | 6.8K OHM 1 / 16 W 1608 5.00% D | |
| | | R2D6 | 0RH0912C622 | RESISTOR,METAL GLAZED(CHIP) | 91 OHM 1 / 16 W 1608 5.00% D | |
| | | R2E6 | 0RH1000C622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D | |
| | | R2E7 | 0RH1000C622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D | |
| | | R2E8 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R2E9 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R2F1 | 0RH2200C622 | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 16 W 1608 5.00% D | |
| | | R2F2 | 0RH2200C622 | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 16 W 1608 5.00% D | |
| | | R2F3 | 0RH1000C622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D | |
| | | R2F4 | 0RH1000C622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D | |
| | | R2F5 | 0RH2202C422 | RESISTOR,METAL GLAZED(CHIP) | 22K OHM 1 / 16 W 1608 1.00% D | |
| | | R2F6 | 0RH5601C622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D | |
| | | R2F7 | 0RH5601C622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D | |
| | | R2F8 | 0RH2201C622 | RESISTOR,METAL GLAZED(CHIP) | 2.2K OHM 1 / 16 W 1608 5.00% D | |
| | | R2F9 | 0RH2201C622 | RESISTOR,METAL GLAZED(CHIP) | 2.2K OHM 1 / 16 W 1608 5.00% D | |
| | | R2G1 | 0RH2201C622 | RESISTOR,METAL GLAZED(CHIP) | 2.2K OHM 1 / 16 W 1608 5.00% D | |
| | | R2G2 | 0RH2201C622 | RESISTOR,METAL GLAZED(CHIP) | 2.2K OHM 1 / 16 W 1608 5.00% D | |
| | | R2G3 | 0RH5601C622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D | |
| | | R2G4 | 0RH5601C622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D | |
| | | R2G7 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D | |
| | | R2G9 | 0RH1500C622 | RESISTOR,METAL GLAZED(CHIP) | 150 OHM 1 / 16 W 1608 5.00% D | |
| | | R2M1 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R2M2 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D | |
| | | R2M3 | 0RH7501C622 | RESISTOR,METAL GLAZED(CHIP) | 7.5K OHM 1 / 16 W 1608 5.00% D | |
| | | R2M5 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R2M6 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D | |
| | | R2M7 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D | |
| | | R2M8 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R2M9 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D | |
| | | R2N0 | 0RH1202C622 | RESISTOR,METAL GLAZED(CHIP) | 12K OHM 1 / 16 W 1608 5.00% D | |
| | | R2N1 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R2N2 | 0RH5601C622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D | |
| | | R2N3 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D | |
| | | R2N4 | 0RH1502C622 | RESISTOR,METAL GLAZED(CHIP) | 15K OHM 1 / 16 W 1608 5.00% D | |
| | | R2N5 | 0RH1202C622 | RESISTOR,METAL GLAZED(CHIP) | 12K OHM 1 / 16 W 1608 5.00% D | |
| | | R2N6 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R2N7 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R2N8 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D | |
| | | R2N9 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D | |
| | | R2P0 | 0RH4701C622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D | |
| | | R2P1 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D | |
| | | R2P2 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
|  |  | R2P3 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R2P7 | 0RH2202C622 | RESISTOR,METAL GLAZED(CHIP) | 22K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R2P8 | 0RH1201C622 | RESISTOR,METAL GLAZED(CHIP) | 1.2K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R2P9 | 0RH4701C622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R2Q1 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R2R1 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R2R2 | 0RH4701C622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R303 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R306 | 0RH4701C622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R307 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R308 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R309 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R310 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R315 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R317 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R318 | 0RH4701C622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R319 | 0RH4701C622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R320 | 0RH4701C622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R321 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R322 | 0RH4701C622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R323 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R364 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R365 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R366 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R367 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R368 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R369 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R3F1 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R3F2 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R3F3 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R3F4 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R3F5 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R401 | 0RH0182C622 | RESISTOR,METAL GLAZED(CHIP) | 18 OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R403 | 0RH0102C622 | RESISTOR,METAL GLAZED(CHIP) | 10 OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R404 | 0RH6801C622 | RESISTOR,METAL GLAZED(CHIP) | 6.8K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R405 | 0RH1801C622 | RESISTOR,METAL GLAZED(CHIP) | 1.8K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R406 | 0RH1801C622 | RESISTOR,METAL GLAZED(CHIP) | 1.8K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R407 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R409 | 0RH6801C622 | RESISTOR,METAL GLAZED(CHIP) | 6.8K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R410 | 0RH6801C622 | RESISTOR,METAL GLAZED(CHIP) | 6.8K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R411 | 0RH6801C622 | RESISTOR,METAL GLAZED(CHIP) | 6.8K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R412 | 0RH1801C622 | RESISTOR,METAL GLAZED(CHIP) | 1.8K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R413 | 0RH8201C622 | RESISTOR,METAL GLAZED(CHIP) | 8.2K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R414 | 0RH5601C622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R415 | 0RH4701C622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R416 | 0RH8201C622 | RESISTOR,METAL GLAZED(CHIP) | 8.2K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R417 | 0RH1801C622 | RESISTOR,METAL GLAZED(CHIP) | 1.8K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R418 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R419 | 0RH3300C622 | RESISTOR,METAL GLAZED(CHIP) | 330 OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R420 | 0RH3300C622 | RESISTOR,METAL GLAZED(CHIP) | 330 OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R428 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R429 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R430 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R431 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R432 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D |  |
|  |  | R433 | 0RH5600C622 | RESISTOR,METAL GLAZED(CHIP) | 560 OHM 1 / 16 W 1608 5.00% D |  |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | R434 | 0RH5600C622 | RESISTOR,METAL GLAZED(CHIP) | 560 OHM 1 / 16 W 1608 5.00% D | |
| | | R435 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R436 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R437 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R438 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R439 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R440 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R441 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R501 | 0RH3301C622 | RESISTOR,METAL GLAZED(CHIP) | 3.3K OHM 1 / 16 W 1608 5.00% D | |
| | | R502 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R503 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | R504 | 0RH1500C422 | RESISTOR,METAL GLAZED(CHIP) | 150 OHM 1 / 16 W 1608 1.00% D | |
| | | R505 | 0RH0102C622 | RESISTOR,METAL GLAZED(CHIP) | 10 OHM 1 / 16 W 1608 5.00% D | |
| | | R506 | 0RH1001C422 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 1.00% D | |
| | | R507 | 0RH1100C622 | RESISTOR,METAL GLAZED(CHIP) | 110 OHM 1 / 16 W 1608 5.00% D | |
| | | R508 | 0RH0752C622 | RESISTOR,METAL GLAZED(CHIP) | 75 OHM 1 / 16 W 1608 5.00% D | |
| | | R509 | 0RH1100C622 | RESISTOR,METAL GLAZED(CHIP) | 110 OHM 1 / 16 W 1608 5.00% D | |
| | | R510 | 0RH0222C622 | RESISTOR,METAL GLAZED(CHIP) | 22 OHM 1 / 16 W 1608 5.00% D | |
| | | R514 | 0RH0222C622 | RESISTOR,METAL GLAZED(CHIP) | 22 OHM 1 / 16 W 1608 5.00% D | |
| | | R515 | 0RH0222C622 | RESISTOR,METAL GLAZED(CHIP) | 22 OHM 1 / 16 W 1608 5.00% D | |
| | | R516 | 0RH1000C622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 16 W 1608 5.00% D | |
| | | R520 | 0RH0222C622 | RESISTOR,METAL GLAZED(CHIP) | 22 OHM 1 / 16 W 1608 5.00% D | |
| | | R521 | 0RH4701C622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D | |
| | | R522 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D | |
| | | R523 | 0RH4701C622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 16 W 1608 5.00% D | |
| | | R524 | 0RH1001C622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 16 W 1608 5.00% D | |
| | | R525 | 0LC0233002B | INDUCTOR,CHIP | HB-1S1608-800JT CERATECH R/TP | |
| | | R530 | 0RH1201C622 | RESISTOR,METAL GLAZED(CHIP) | 1.2K OHM 1 / 16 W 1608 5.00% D | |
| | | R531 | 0RH1201C622 | RESISTOR,METAL GLAZED(CHIP) | 1.2K OHM 1 / 16 W 1608 5.00% D | |
| | | R532 | 0RH1201C622 | RESISTOR,METAL GLAZED(CHIP) | 1.2K OHM 1 / 16 W 1608 5.00% D | |
| | | R533 | 0RH1201C622 | RESISTOR,METAL GLAZED(CHIP) | 1.2K OHM 1 / 16 W 1608 5.00% D | |
| | | R534 | 0RH6800C622 | RESISTOR,METAL GLAZED(CHIP) | 680 OHM 1 / 16 W 1608 5.00% D | |
| | | R535 | 0RH1201C622 | RESISTOR,METAL GLAZED(CHIP) | 1.2K OHM 1 / 16 W 1608 5.00% D | |
| | | R541 | 0RH1002C622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 16 W 1608 5.00% D | |
| | | R588 | 0RH0752C622 | RESISTOR,METAL GLAZED(CHIP) | 75 OHM 1 / 16 W 1608 5.00% D | |
| | | R589 | 0RH0752C622 | RESISTOR,METAL GLAZED(CHIP) | 75 OHM 1 / 16 W 1608 5.00% D | |
| | | R590 | 0RH0752C622 | RESISTOR,METAL GLAZED(CHIP) | 75 OHM 1 / 16 W 1608 5.00% D | |
| | | R591 | 0RH0752C622 | RESISTOR,METAL GLAZED(CHIP) | 75 OHM 1 / 16 W 1608 5.00% D | |
| | | R592 | 0RH0000C622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 16 W 1608 5.00% D | |
| | | X201 | 6202R-BM04C | RESONATOR,CRYSTAL | HC-49/S BUBANG 33-8688MHZ 5 | |
| | | X501 | 6212AA2271F | RESONATOR,CRYSTAL | HC-49S KITELCO 27MHZ +/- 20 PP | |
| | | X501 | 6202R-BL06C | RESONATOR,CRYSTAL | HC-49/S BUBANG 27MHZ 20PPM 1 | |
| | | ***** BOARD ASSEMBLY MAIN(VCR) ***** | | | | |
| | | A46 | 3501R-8119U | BOARD ASSEMBLY | VCR V640GP | |
| | | 323 | 3111R-0089C | CASE ASSEMBLY | VCR - PRE-AMP (02-PAL) | |
| | | BC91 | 636-004C | FILTER(CIRC),EMC | BEAD CORE BFS3550R2FD8,R T/P | |
| | | BC92 | 636-004C | FILTER(CIRC),EMC | BEAD CORE BFS3550R2FD8,R T/P | |
| | | C216 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | C301 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C302 | 0CE2264F638 | CAPACITOR,ELECTROLYTIC | 22M SRA 16V M FM5 TP(5) | |
| | | C303 | 0CH1182K516 | CAPACITOR,FIXED CERAMIC(Temp.c | 1800PF 50V 10% B(5YP) 2012 R/T | |
| | | C304 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C305 | 0CH1103K416 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.01UF 50V 5% B(5YP) 2012 R/TP | |
| | | C306 | 0CH1182K516 | CAPACITOR,FIXED CERAMIC(Temp.c | 1800PF 50V 10% B(5YP) 2012 R/T | |
| | | C307 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) | |
| | | C308 | 0CH1153K516 | CAPA,CHIP CERAMIC M/L H.D F/S | 0.015U 50V K B 2.0X1.2 R/TP | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
|  |  | C309 | 0CH4221K416 | CAPA,CHIP CERAMIC M/L T.C F/S | 220P 50V J 2.0X1.25 R/TP |  |
|  |  | C310 | 0CH1103K416 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.01UF 50V 5% B(5YP) 2012 R/TP |  |
|  |  | C311 | 0CE4765K618 | CAPACITOR,AL.ELECTROLYTIC | 47UF SR,SV 50V M FL TP 5 |  |
|  |  | C312 | 0CH1103K416 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.01UF 50V 5% B(5YP) 2012 R/TP |  |
|  |  | C313 | 0CQ2232L559 | CAPACITOR,POLYESTER | 0.022UF S 63V K PP NI TP5 |  |
|  |  | C314 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) |  |
|  |  | C315 | 0CE2254K638 | CAPACITOR,FIXED ELECTROLYTIC | 2.2UF SRA,SS 50V 20% FM5 TP 5 |  |
|  |  | C316 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) |  |
|  |  | C317 | 0CH1103K416 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.01UF 50V 5% B(5YP) 2012 R/TP |  |
|  |  | C318 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) |  |
|  |  | C319 | 0CH1103K416 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.01UF 50V 5% B(5YP) 2012 R/TP |  |
|  |  | C320 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) |  |
|  |  | C321 | 0CH4680K416 | CAPA,CHIP CERAMIC M/L T.C F/S | 68P 50V J COG 2.0X1.2 R/TP |  |
|  |  | C322 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) |  |
|  |  | C323 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) |  |
|  |  | C324 | 0CE4754K638 | CAPACITOR,FIXED ELECTROLYTIC | 4.7UF SRA,SS 50V 20% FM5 TP 5 |  |
|  |  | C325 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) |  |
|  |  | C326 | 0CH1103K416 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.01UF 50V 5% B(5YP) 2012 R/TP |  |
|  |  | C327 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) |  |
|  |  | C328 | 0CH1103K416 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.01UF 50V 5% B(5YP) 2012 R/TP |  |
|  |  | C329 | 0CH1103K416 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.01UF 50V 5% B(5YP) 2012 R/TP |  |
|  |  | C330 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) |  |
|  |  | C331 | 0CE2264F638 | CAPACITOR,ELECTROLYTIC | 22M SRA 16V M FM5 TP(5) |  |
|  |  | C333 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) |  |
|  |  | C334 | 0CH1103K416 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.01UF 50V 5% B(5YP) 2012 R/TP |  |
|  |  | C335 | 0CH1103K416 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.01UF 50V 5% B(5YP) 2012 R/TP |  |
|  |  | C336 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) |  |
|  |  | C337 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) |  |
|  |  | C338 | 0CH1473K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.047U 50V K X7R 2.0X1.2 R/TP |  |
|  |  | C339 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) |  |
|  |  | C340 | 0CH1473K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.047U 50V K X7R 2.0X1.2 R/TP |  |
|  |  | C341 | 0CH1223K516 | CAPA,CHIP CERAMIC M/L H.D F/S | 0.022U 50V K B 2.0X1.2 R/TP |  |
|  |  | C342 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) |  |
|  |  | C343 | 0CH1473K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.047U 50V K X7R 2.0X1.2 R/TP |  |
|  |  | C345 | 0CH1563K516 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.056UF 50V 10% B(5YP) 2012 R/ |  |
|  |  | C346 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) |  |
|  |  | C347 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) |  |
|  |  | C348 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) |  |
|  |  | C349 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) |  |
|  |  | C350 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) |  |
|  |  | C351 | 0CH4221K416 | CAPA,CHIP CERAMIC M/L T.C F/S | 220P 50V J 2.0X1.25 R/TP |  |
|  |  | C353 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) |  |
|  |  | C355 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) |  |
|  |  | C356 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) |  |
|  |  | C357 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) |  |
|  |  | C358 | 0CH4680K416 | CAPA,CHIP CERAMIC M/L T.C F/S | 68P 50V J COG 2.0X1.2 R/TP |  |
|  |  | C359 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) |  |
|  |  | C361 | 0CH1223K516 | CAPA,CHIP CERAMIC M/L H.D F/S | 0.022U 50V K B 2.0X1.2 R/TP |  |
|  |  | C362 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) |  |
|  |  | C363 | 0CH1103K416 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.01UF 50V 5% B(5YP) 2012 R/TP |  |
|  |  | C366 | 0CH1103K416 | CAPACITOR,FIXED CERAMIC(Temp.c | 0.01UF 50V 5% B(5YP) 2012 R/TP |  |
|  |  | C367 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) |  |
|  |  | C368 | 0CH1822K516 | CHIP CAPA CERAMIC M/L H.D F/S | 8200P 50V K B 2.0X1.2 R/TP |  |
|  |  | C369 | 0CH4101K416 | CAPA,CHIP CERAMIC M/L T.C F/S | 100P 50V J NP0 2.0*1.25 R/TP |  |
|  |  | C370 | 0CH4820K416 | CAPA,CHIP CERAMIC M/L T.C F/S | 82P 50V J COG 2.0X1.2 R/TP |  |
|  |  | C371 | 0CH4820K416 | CAPA,CHIP CERAMIC M/L T.C F/S | 82P 50V J COG 2.0X1.2 R/TP |  |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | C372 | 0CH4820K416 | CAPA,CHIP CERAMIC M/L T.C F/S | 82P 50V J COG 2.0X1.2 R/TP | |
| | | C374 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C375 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C376 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C377 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C500 | 0CE4775C638 | CAPACITOR,FIXED ELECTROLYTIC | 470UF SR,SV 6.3V 20% FM5 TP 5 | |
| | | C501 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C502 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C503 | 0CE2274C638 | CAPACITOR,ELECTROLYTIC | 220M SRA 6.3V M FM5 TP(5) | |
| | | C504 | 0CE2274C638 | CAPACITOR,ELECTROLYTIC | 220M SRA 6.3V M FM5 TP(5) | |
| | | C505 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C506 | 0CH1223K516 | CAPA,CHIP CERAMIC M/L H.D F/S | 0.022U 50V K B 2.0X1.2 R/TP | |
| | | C508 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C509 | 0CH4220K406 | CHIP CAPA CERAMIC M/L T.C F/S | 22P 50V J SL 2.0X1.2 R/TP | |
| | | C511 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C512 | 0CH1102K516 | CHIP CAPA CERAMIC M/L H.D F/S | 1000P 50V K B 2.0X1.25 R/TP | |
| | | C513 | 0CH1102K516 | CHIP CAPA CERAMIC M/L H.D F/S | 1000P 50V K B 2.0X1.25 R/TP | |
| | | C514 | 0CH4120K406 | CAPACITOR,FIXED CERAMIC(High d | 12PF 50V 5% SL 2012 R/TP | |
| | | C515 | 0CH4150K416 | CAPA,CHIP CERAMIC M/L T.C F/S | 15P 50V J COG 2.0X1.2 R/TP | |
| | | C516 | 0CH1223K516 | CAPA,CHIP CERAMIC M/L H.D F/S | 0.022U 50V K B 2.0X1.2 R/TP | |
| | | C518 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C519 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C520 | 0CH1102K516 | CHIP CAPA CERAMIC M/L H.D F/S | 1000P 50V K B 2.0X1.25 R/TP | |
| | | C521 | 0CH1102K516 | CHIP CAPA CERAMIC M/L H.D F/S | 1000P 50V K B 2.0X1.25 R/TP | |
| | | C523 | 0CE2254K638 | CAPACITOR,FIXED ELECTROLYTIC | 2.2UF SRA,SS 50V 20% FM5 TP 5 | |
| | | C524 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C525 | 0CH1105F946 | CAPACITOR,CHIP[CERAMIC M/L HD | 1UF 16V Z Y5V(F) 2012 R/TP | |
| | | C526 | 0CE4764J638 | CAPACITOR,AL.ELECTROLYTIC | 47UF SRA,SS 35V M FM5 TP 5 | |
| | | C527 | 0CH4221K416 | CAPA,CHIP CERAMIC M/L T.C F/S | 220P 50V J 2.0X1.25 R/TP | |
| | | C533 | 0CH1102K516 | CHIP CAPA CERAMIC M/L H.D F/S | 1000P 50V K B 2.0X1.25 R/TP | |
| | | C534 | 0CE4754K638 | CAPACITOR,FIXED ELECTROLYTIC | 4.7UF SRA,SS 50V 20% FM5 TP 5 | |
| | | C535 | 0CH1105F946 | CAPACITOR,CHIP[CERAMIC M/L HD | 1UF 16V Z Y5V(F) 2012 R/TP | |
| | | C543 | 0CH1222K516 | CHIP CAPA CERAMIC M/L H.D F/S | 2200P 50V K B 2.0X1.25 R/TP | |
| | | C544 | 0CH1473K946 | CHIP CAPA CERAMIC M/L H.D F/S | 0.047UF 50V Z Y5V(F) 2012 R/TP | |
| | | C545 | 0CH1333H516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.033U 25V K B 2.0X1.25 R/TP | |
| | | C546 | 0CE4764J638 | CAPACITOR,AL.ELECTROLYTIC | 47UF SRA,SS 35V M FM5 TP 5 | |
| | | C547 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C551 | 0CH1333H516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.033U 25V K B 2.0X1.25 R/TP | |
| | | C552 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C561 | 0CE2274C638 | CAPACITOR,ELECTROLYTIC | 220M SRA 6.3V M FM5 TP(5) | |
| | | C564 | 0CH1102K516 | CHIP CAPA CERAMIC M/L H.D F/S | 1000P 50V K B 2.0X1.25 R/TP | |
| | | C567 | 0CH1102K516 | CHIP CAPA CERAMIC M/L H.D F/S | 1000P 50V K B 2.0X1.25 R/TP | |
| | | C570 | 0CH4150K416 | CAPA,CHIP CERAMIC M/L T.C F/S | 15P 50V J COG 2.0X1.2 R/TP | |
| | | C571 | 0CH4150K416 | CAPA,CHIP CERAMIC M/L T.C F/S | 15P 50V J COG 2.0X1.2 R/TP | |
| | | C575 | 0CH1102K516 | CHIP CAPA CERAMIC M/L H.D F/S | 1000P 50V K B 2.0X1.25 R/TP | |
| | | C576 | 0CH4270K416 | CHIP CAPA CERAMIC M/L T.C F/S | 27P 50V J COG 2.0X1.2 R/TP | |
| | | C577 | 0CH1223K516 | CAPA,CHIP CERAMIC M/L H.D F/S | 0.022U 50V K B 2.0X1.2 R/TP | |
| | | C578 | 0CH1222K516 | CHIP CAPA CERAMIC M/L H.D F/S | 2200P 50V K B 2.0X1.25 R/TP | |
| | | C581 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C582 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C583 | 0CH1105F946 | CAPACITOR,CHIP[CERAMIC M/L HD | 1UF 16V Z Y5V(F) 2012 R/TP | |
| | | C596 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C5A3 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C5A4 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C5A5 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) | |
| | | C5K1 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | C5L1 | 0CH1105F946 | CAPACITOR,CHIP[CERAMIC M/L HD | 1UF 16V Z Y5V(F) 2012 R/TP | |
| | | C5L6 | 0CH1102K516 | CHIP CAPA CERAMIC M/L H.D F/S | 1000P 50V K B 2.0X1.25 R/TP | |
| | | C5P1 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C5P2 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C5S1 | 0CH4430K416 | CAPACITOR,FIXED CERAMIC(High d | 43PF 50V J NP0 2012 R/TP | |
| | | C5S3 | 0CH1223K516 | CAPA,CHIP CERAMIC M/L H.D F/S | 0.022U 50V K B 2.0X1.2 R/TP | |
| | | C706 | 0CH4330K416 | CAPA,CHIP CERAMIC M/L T.C F/S | 33P 50V J C 2.0X1.2 R/TP | |
| | | C707 | 0CH4680K416 | CAPA,CHIP CERAMIC M/L T.C F/S | 68P 50V J COG 2.0X1.2 R/TP | |
| | | C708 | 0CE4775C638 | CAPACITOR,FIXED ELECTROLYTIC | 470UF SR,SV 6.3V 20% FM5 TP 5 | |
| | | C709 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C710 | 0CE4754K638 | CAPACITOR,FIXED ELECTROLYTIC | 4.7UF SRA,SS 50V 20% FM5 TP 5 | |
| | | C712 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C713 | 0CH4560K416 | CHIP CAPA CERAMIC M/L T.C F/S | 56P 50V J NPO 2.0X1.25 R/TP | |
| | | C714 | 0CH4560K416 | CHIP CAPA CERAMIC M/L T.C F/S | 56P 50V J NPO 2.0X1.25 R/TP | |
| | | C715 | 0CH4050K016 | CAPA,CHIP CERAMIC M/L T.C F/S | 5P 50V C COG 2.0X1.2 R/TP | |
| | | C716 | 0CH4100K416 | CAPA,CHIP CERAMIC M/L T.C F/S | 10PF 50V J NP0 2012 R/TP | |
| | | C717 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C718 | 0CE4764C638 | CAPACITOR,ELECTROLYTIC | 47M SRA 6.3V M FM5 TP(5) | |
| | | C719 | 0CE4764C638 | CAPACITOR,ELECTROLYTIC | 47M SRA 6.3V M FM5 TP(5) | |
| | | C720 | 0CH1152K516 | CAPACITOR,FIXED CERAMIC(Temp.c | 1500PF 50V 10% B(5YP) 2012 R/T | |
| | | C721 | 0CH1392K566 | CAPACITOR,FIXED CERAMIC(Temp.c | 3900P 50V K X7R 2.0X1.2 R/TP | |
| | | C722 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C723 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C726 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C727 | 0CE4764C638 | CAPACITOR,ELECTROLYTIC | 47M SRA 6.3V M FM5 TP(5) | |
| | | C728 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C729 | 0CE3354K638 | CAPACITOR,FIXED ELECTROLYTIC | 3.3UF SRA,SS 50V 20% FM5 TP 5 | |
| | | C730 | 0CH4150K416 | CAPA,CHIP CERAMIC M/L T.C F/S | 15P 50V J COG 2.0X1.2 R/TP | |
| | | C731 | 0CH4090K116 | CAPACITOR,FIXED CERAMIC(High d | 9PF 50V 0.5 pF NP0 2012 R/TP | |
| | | C732 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C751 | 0CE4764C638 | CAPACITOR,ELECTROLYTIC | 47M SRA 6.3V M FM5 TP(5) | |
| | | C752 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C755 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C7M1 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C7M2 | 0CE4764C638 | CAPACITOR,ELECTROLYTIC | 47M SRA 6.3V M FM5 TP(5) | |
| | | C7M3 | 0CH4270K416 | CHIP CAPA CERAMIC M/L T.C F/S | 27P 50V J COG 2.0X1.2 R/TP | |
| | | C7M6 | 0CH4270K416 | CHIP CAPA CERAMIC M/L T.C F/S | 27P 50V J COG 2.0X1.2 R/TP | |
| | | C7V1 | 0CE4764C638 | CAPACITOR,ELECTROLYTIC | 47M SRA 6.3V M FM5 TP(5) | |
| | | C7V2 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C7V3 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) | |
| | | C7V4 | 0CH1473K946 | CHIP CAPA CERAMIC M/L H.D F/S | 0.047UF 50V Z Y5V(F) 2012 R/TP | |
| | | C7V5 | 0CH1473K946 | CHIP CAPA CERAMIC M/L H.D F/S | 0.047UF 50V Z Y5V(F) 2012 R/TP | |
| | | C802 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C803 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C804 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C805 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C806 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C807 | 0CE4744K638 | CAPACITOR,ELECTROLYTIC | 0.47M SRA 50V M FM5 TP(5) | |
| | | C808 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) | |
| | | C809 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) | |
| | | C810 | 0CH1105F946 | CAPACITOR,CHIP[CERAMIC M/L HD | 1UF 16V Z Y5V(F) 2012 R/TP | |
| | | C811 | 0CH1105F946 | CAPACITOR,CHIP[CERAMIC M/L HD | 1UF 16V Z Y5V(F) 2012 R/TP | |
| | | C812 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C813 | 0CH1682K516 | CAPACITOR,FIXED CERAMIC(Temp.c | 6800PF 50V 10% B(5YP) 2012 R/T | |
| | | C814 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C815 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | C816 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C817 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C818 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C819 | 0CH1682K516 | CAPACITOR,FIXED CERAMIC(Temp.c | 6800PF 50V 10% B(5YP) 2012 R/T | |
| | | C820 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C821 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C822 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C823 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C824 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C825 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C826 | 0CH1103K516 | CHIP CAPA CERAMIC M/L H.D F/S | 0.01U 50V K B 2.0X1.25 R/TP | |
| | | C828 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) | |
| | | C829 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) | |
| | | C834 | 0CE4774F638 | CAPACITOR,FIXED ELECTROLYTIC | 470UF SRA,SS 16V 20% FM5 TP 5 | |
| | | C855 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C856 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C857 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C859 | 0CE2264F638 | CAPACITOR,ELECTROLYTIC | 22M SRA 16V M FM5 TP(5) | |
| | | C860 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C861 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C863 | 0CE4764F638 | CAPACITOR,ELECTROLYTIC | 47M SRA/SS 16V M FM5 TP(5) | |
| | | C864 | 0CE1054K638 | CAPACITOR,ELECTROLYTIC | 1.0M SRA/SS50V M FM5 TP(5) | |
| | | C869 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C870 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C871 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C884 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C885 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C886 | 0CE4774F638 | CAPACITOR,FIXED ELECTROLYTIC | 470UF SRA,SS 16V 20% FM5 TP 5 | |
| | | C887 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C888 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C889 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C890 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C891 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C892 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | C908 | 0CH1102K516 | CHIP CAPA CERAMIC M/L H.D F/S | 1000P 50V K B 2.0X1.25 R/TP | |
| | | C910 | 0CH1102K516 | CHIP CAPA CERAMIC M/L H.D F/S | 1000P 50V K B 2.0X1.25 R/TP | |
| | | C912 | 0CN1020K518 | CAPACITOR TUBULA(HIGH DIELE) | 1000P 50V K B TA26 | |
| | | C915 | 0CH1102K516 | CHIP CAPA CERAMIC M/L H.D F/S | 1000P 50V K B 2.0X1.25 R/TP | |
| | | C916 | 0CH1102K516 | CHIP CAPA CERAMIC M/L H.D F/S | 1000P 50V K B 2.0X1.25 R/TP | |
| | | C921 | 0CH1102K516 | CHIP CAPA CERAMIC M/L H.D F/S | 1000P 50V K B 2.0X1.25 R/TP | |
| | | C931 | 0CE4775C638 | CAPACITOR,FIXED ELECTROLYTIC | 470UF SR,SV 6.3V 20% FM5 TP 5 | |
| | | C932 | 0CE4775C638 | CAPACITOR,FIXED ELECTROLYTIC | 470UF SR,SV 6.3V 20% FM5 TP 5 | |
| | | C933 | 0CE4775C638 | CAPACITOR,FIXED ELECTROLYTIC | 470UF SR,SV 6.3V 20% FM5 TP 5 | |
| | | C934 | 0CE4775C638 | CAPACITOR,FIXED ELECTROLYTIC | 470UF SR,SV 6.3V 20% FM5 TP 5 | |
| | | C935 | 0CE4775C638 | CAPACITOR,FIXED ELECTROLYTIC | 470UF SR,SV 6.3V 20% FM5 TP 5 | |
| | | C938 | 0CH1104K946 | CAPACITOR,FIXED CERAMIC(TEMP.C | 0.1UF 2012 50V 80%,-20% Y5V(F) | |
| | | CS50 | 6600M000002 | SWITCH,PUSH | MPU11810MLB0 MIC DC 5V 1MA D-3 | |
| | | D301 | 0DD133009AA | DIODE,SWITCHING | 1SS133 DETECT,SW TP | |
| | | D502 | 0DD133009AA | DIODE,SWITCHING | 1SS133 DETECT,SW TP | |
| | | D509 | 0DD133009AA | DIODE,SWITCHING | 1SS133 DETECT,SW TP | |
| | | D801 | 0DD133009AA | DIODE,SWITCHING | 1SS133 DETECT,SW TP | |
| | | D802 | 0DD133009AA | DIODE,SWITCHING | 1SS133 DETECT,SW TP | |
| | | D902 | 0DD133009AA | DIODE,SWITCHING | 1SS133 DETECT,SW TP | |
| | | ES50 | 4931R-0050C | HOLDER ASSEMBLY | END (DI) | |
| | | ES50 | 4931R-0050C | HOLDER ASSEMBLY | END (DI) | |
| | | F8A1 | 6200HJC901A | FILTER(CIRC),EMC | CFI06B1H101MF SAMHWA TP 2-5K | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | FL30 | 633-032K | COIL,IFT | BIAC OSC,1CHIP 5V(KS-75M) KWAN | |
| | | IC30 | 0ILNRSA005B | IC,LINEAR | LA71750EM SANYO 100PIN QFP TRA | |
| | | IC50 | 0IMCRHI030A | IC,MICRO CONTROLLER | HD6432197SA23F HITACHI 112PIN | |
| | | IC50 | 0IAL241600B | IC,ATMEL | AT24C16 - - - - | |
| | | IC50 | 0ICS241600B | IC,CATALYST | CAT24W16P 8P DIP ST 16K SERIAL | |
| | | IC50 | 0IKE703100A | IC,KEC | KIA7031P 3P 3.1V RESET(TAPING) | |
| | | IC50 | 0ISS753100A | IC,SAMSUNG ELECTRONICS | KA7531Z TO-92 TP 3.1V RESET | |
| | | IC50 | 0IKE704200B | IC,KEC | KIA7042P 3P 4.2V RESET(TAPING) | |
| | | IC75 | 0IIT340700B | IC,ITT | MSP3407D-QG QFP44 BK A2 IC | |
| | | IC75 | 0IIT340700C | IC,ITT | MSP3407G-QG-B8-V3 44 QFP TRAY | |
| | | IC7V | 0ILNRMN001A | IC,LINEAR | SDA5650 MICRONAS 14 DIP ST VPS | |
| | | IC80 | 0IPH960500A | IC,PHILIPS | TDA9605H QFP44 BK HIFI AMP+HIF | |
| | | IC80 | 0IMT144300A | IC,MITSUMI | MM1443XJ SSOP-34 TP CANAL S/W | |
| | | J806 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | J902 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | J903 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | J904 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | J905 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | JK90 | 6612J00025H | JACK,RCA | RCA-1302A-12(5PIN)SILVER YUQIU | |
| | | L301 | 0LR0102J0N5 | INDUCTOR,RADIAL LEAD | 10UH 5% TP 3X5 TR5 | |
| | | L301 | 0LR0102K0P5 | INDUCTOR,RADIAL LEAD | LF7.5N OEL 10UH 10% TP 4.8X4.0 | |
| | | L301 | GLR0102K0P5 | INDUCTOR,RADIAL LEAD | LF7.5N OEL 10UH 10% TP 4.8X4.0 | |
| | | L302 | 0LR1000K035 | INDUCTOR RADIAL LEAD | 100M K 6X6 L5 TP | |
| | | L303 | 0LR0102J0N5 | INDUCTOR,RADIAL LEAD | 10UH 5% TP 3X5 TR5 | |
| | | L303 | 0LR0102K0P5 | INDUCTOR,RADIAL LEAD | LF7.5N OEL 10UH 10% TP 4.8X4.0 | |
| | | L303 | GLR0102K0P5 | INDUCTOR,RADIAL LEAD | LF7.5N OEL 10UH 10% TP 4.8X4.0 | |
| | | L304 | 0LR0102J0N5 | INDUCTOR,RADIAL LEAD | 10UH 5% TP 3X5 TR5 | |
| | | L304 | 0LR0102K0P5 | INDUCTOR,RADIAL LEAD | LF7.5N OEL 10UH 10% TP 4.8X4.0 | |
| | | L304 | GLR0102K0P5 | INDUCTOR,RADIAL LEAD | LF7.5N OEL 10UH 10% TP 4.8X4.0 | |
| | | L305 | 0LR1000K035 | INDUCTOR RADIAL LEAD | 100M K 6X6 L5 TP | |
| | | L307 | 0LR0102J0N5 | INDUCTOR,RADIAL LEAD | 10UH 5% TP 3X5 TR5 | |
| | | L307 | GLR0102K0P5 | INDUCTOR,RADIAL LEAD | LF7.5N OEL 10UH 10% TP 4.8X4.0 | |
| | | L307 | 0LR0102K0P5 | INDUCTOR,RADIAL LEAD | LF7.5N OEL 10UH 10% TP 4.8X4.0 | |
| | | L501 | 0LA0122K018 | INDUCTOR AXIAL LEAD | 12M K 2.3X3.4 L5 TP | |
| | | L503 | 0LR1000J0N5 | INDUCTOR,RADIAL LEAD | 100UH 5% TP 3X5 TR5 | |
| | | L504 | 0LR0102J0N5 | INDUCTOR,RADIAL LEAD | 10UH 5% TP 3X5 TR5 | |
| | | L504 | 0LR0102K0P5 | INDUCTOR,RADIAL LEAD | LF7.5N OEL 10UH 10% TP 4.8X4.0 | |
| | | L505 | 0LR1000K035 | INDUCTOR RADIAL LEAD | 100M K 6X6 L5 TP | |
| | | L506 | 635-027C | INDUCTOR,RADIAL LEAD | EL0405RA SKI150G-3 K-TDK 15UH | |
| | | L5S1 | 0LA0332K018 | INDUCTOR AXIAL LEAD | 33M K 2.3X3.4 L5 TP | |
| | | L701 | 0LR1000K035 | INDUCTOR RADIAL LEAD | 100M K 6X6 L5 TP | |
| | | L702 | 0LR0102K035 | INDUCTOR RADIAL LEAD | 10M K 6X6 L5 TP | |
| | | L704 | 0LR0102K035 | INDUCTOR RADIAL LEAD | 10M K 6X6 L5 TP | |
| | | L705 | 0LR0102K035 | INDUCTOR RADIAL LEAD | 10M K 6X6 L5 TP | |
| | | L706 | 0LA0821K018 | INDUCTOR AXIAL LEAD | 8.2M K 2.3X3.4 L5 TP | |
| | | L7M1 | 0LR1000K035 | INDUCTOR RADIAL LEAD | 100M K 6X6 L5 TP | |
| | | L7V1 | 0LR1000K035 | INDUCTOR RADIAL LEAD | 100M K 6X6 L5 TP | |
| | | L801 | 0LR1000K035 | INDUCTOR RADIAL LEAD | 100M K 6X6 L5 TP | |
| | | L803 | 0LR1000K035 | INDUCTOR RADIAL LEAD | 100M K 6X6 L5 TP | |
| | | L901 | 0LA1000K018 | INDUCTOR AXIAL LEAD | 100M K 2.3X3.4 L5 TP | |
| | | L902 | 0LA1000K018 | INDUCTOR AXIAL LEAD | 100M K 2.3X3.4 L5 TP | |
| | | L903 | 0LA1000K018 | INDUCTOR AXIAL LEAD | 100M K 2.3X3.4 L5 TP | |
| | | L904 | 0LA1000K018 | INDUCTOR AXIAL LEAD | 100M K 2.3X3.4 L5 TP | |
| | | L905 | 0LA1000K018 | INDUCTOR AXIAL LEAD | 100M K 2.3X3.4 L5 TP | |
| | | L906 | 0LA1000K018 | INDUCTOR AXIAL LEAD | 100M K 2.3X3.4 L5 TP | |
| | | L907 | 0LA1000K018 | INDUCTOR AXIAL LEAD | 100M K 2.3X3.4 L5 TP | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | L908 | 0LA1000K018 | INDUCTOR AXIAL LEAD | 100M K 2.3X3.4 L5 TP | |
| | | L909 | 0LA1000K018 | INDUCTOR AXIAL LEAD | 100M K 2.3X3.4 L5 TP | |
| | | L910 | 0LA1000K018 | INDUCTOR AXIAL LEAD | 100M K 2.3X3.4 L5 TP | |
| | | LD50 | 4931R-0017C | HOLDER ASSEMBLY | LED(DI-CKD)LOCAL | |
| | | MS50 | 6600JB8005C | SWITCH,MODE | MMS00721ZMB0 MIC 5VDC 1MA D-35 | |
| | | MS50 | 6600JB8005B | SWITCH,MODE | NON 5V 1MA VERTICAL -G | |
| | | Q173 | 0TR387509AC | TRANSISTOR | CHIP KTC3875S-GR-T1(ALG) KEC | |
| | | Q301 | 0TR387509AC | TRANSISTOR | CHIP KTC3875S-GR-T1(ALG) KEC | |
| | | Q302 | 0TR150409AC | TRANSISTOR | KTA1504-GR-T1(ASG) CHIP KEC | |
| | | Q303 | 0TR387509AC | TRANSISTOR | CHIP KTC3875S-GR-T1(ALG) KEC | |
| | | Q304 | 0TR387509AC | TRANSISTOR | CHIP KTC3875S-GR-T1(ALG) KEC | |
| | | Q305 | 0TR150409AC | TRANSISTOR | KTA1504-GR-T1(ASG) CHIP KEC | |
| | | Q306 | 0TR534409AA | TRANSISTOR | 2SC5344Y TP | |
| | | Q306 | 0TR320309AA | TRANSISTOR,BIPOLARS | KTC3203 KEC TP TO92 50V 150MA | |
| | | Q308 | 0TR150409AC | TRANSISTOR | KTA1504-GR-T1(ASG) CHIP KEC | |
| | | Q309 | 0TR150409AC | TRANSISTOR | KTA1504-GR-T1(ASG) CHIP KEC | |
| | | Q501 | 0TR387509AC | TRANSISTOR | CHIP KTC3875S-GR-T1(ALG) KEC | |
| | | Q502 | 0TR387509AC | TRANSISTOR | CHIP KTC3875S-GR-T1(ALG) KEC | |
| | | Q503 | 0TR127309AA | TRANSISTOR | KTA1273-TP-Y (KTA966A)KEC | |
| | | Q504 | 0TR387509AC | TRANSISTOR | CHIP KTC3875S-GR-T1(ALG) KEC | |
| | | Q514 | 0TR103009AA | TRANSISTOR | CHIP KRC103S-T1(NC)22-22 KEC | |
| | | Q515 | 0TR103009AA | TRANSISTOR | CHIP KRC103S-T1(NC)22-22 KEC | |
| | | Q5S1 | 0TR387509AC | TRANSISTOR | CHIP KTC3875S-GR-T1(ALG) KEC | |
| | | Q705 | 0TR127309AA | TRANSISTOR | KTA1273-TP-Y (KTA966A)KEC | |
| | | Q706 | 0TR103009AA | TRANSISTOR | CHIP KRC103S-T1(NC)22-22 KEC | |
| | | Q801 | 0TR387509AC | TRANSISTOR | CHIP KTC3875S-GR-T1(ALG) KEC | |
| | | Q802 | 0TR387509AC | TRANSISTOR | CHIP KTC3875S-GR-T1(ALG) KEC | |
| | | Q804 | 0TR150409AC | TRANSISTOR | KTA1504-GR-T1(ASG) CHIP KEC | |
| | | Q901 | 0TR387509AC | TRANSISTOR | CHIP KTC3875S-GR-T1(ALG) KEC | |
| | | Q902 | 0TR387509AC | TRANSISTOR | CHIP KTC3875S-GR-T1(ALG) KEC | |
| | | Q903 | 0TR387509AC | TRANSISTOR | CHIP KTC3875S-GR-T1(ALG) KEC | |
| | | R173 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R301 | 0RH5602D622 | RESISTOR,METAL GLAZED(CHIP) | 56K OHM 1 / 10 W 2012 5.00% D | |
| | | R302 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R303 | 0RH1802D622 | RESISTOR,METAL GLAZED(CHIP) | 18K OHM 1 / 10 W 2012 5.00% D | |
| | | R304 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R305 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R306 | 0RH2202D622 | RESISTOR,METAL GLAZED(CHIP) | 22K OHM 1 / 10 W 2012 5.00% D | |
| | | R307 | 0RH2201D622 | RESISTOR,METAL GLAZED(CHIP) | 2.2K OHM 1 / 10 W 2012 5.00% D | |
| | | R308 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R309 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R310 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R311 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R312 | 0RH6802D622 | RESISTOR,METAL GLAZED(CHIP) | 68K OHM 1 / 10 W 2012 5.00% D | |
| | | R313 | 0RH0221D622 | RESISTOR,METAL GLAZED(CHIP) | 2.2 OHM 1 / 10 W 2012 5.00% D | |
| | | R314 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R315 | 0RH0472D622 | RESISTOR,METAL GLAZED(CHIP) | 47 OHM 1 / 10 W 2012 5.00% D | |
| | | R316 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R317 | 0RH5601D622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 10 W 2012 5.00% D | |
| | | R318 | 0RH3901D622 | RESISTOR,METAL GLAZED(CHIP) | 3.9K OHM 1 / 10 W 2012 5.00% D | |
| | | R319 | 0RH5600D622 | RESISTOR,METAL GLAZED(CHIP) | 560 OHM 1 / 10 W 2012 5.00% D | |
| | | R320 | 0RH1500D622 | RESISTOR,METAL GLAZED(CHIP) | 150 OHM 1 / 10 W 2012 5.00% D | |
| | | R321 | 0RH1201D622 | RESISTOR,METAL GLAZED(CHIP) | 1.2K OHM 1 / 10 W 2012 5.00% D | |
| | | R322 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R324 | 0RH3303D622 | RESISTOR,METAL GLAZED(CHIP) | 330K OHM 1 / 10 W 2012 5.00% D | |
| | | R325 | 0RH4700D622 | RESISTOR,METAL GLAZED(CHIP) | 470 OHM 1 / 10 W 2012 5.00% D | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | R326 | 0RH1202D622 | RESISTOR,METAL GLAZED(CHIP) | 12K OHM 1 / 10 W 2012 5.00% D | |
| | | R327 | 0RH5601D622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 10 W 2012 5.00% D | |
| | | R328 | 0RH2700D622 | RESISTOR,METAL GLAZED(CHIP) | 270 OHM 1 / 10 W 2012 5.00% D | |
| | | R329 | 0RH1202D622 | RESISTOR,METAL GLAZED(CHIP) | 12K OHM 1 / 10 W 2012 5.00% D | |
| | | R330 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R331 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R332 | 0RH4702D622 | RESISTOR,METAL GLAZED(CHIP) | 47K OHM 1 / 10 W 2012 5.00% D | |
| | | R333 | 0RH3901D622 | RESISTOR,METAL GLAZED(CHIP) | 3.9K OHM 1 / 10 W 2012 5.00% D | |
| | | R334 | 0RH2701D622 | RESISTOR,METAL GLAZED(CHIP) | 2.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R335 | 0RH6801D622 | RESISTOR,METAL GLAZED(CHIP) | 6.8K OHM 1 / 10 W 2012 5.00% D | |
| | | R336 | 0RH1003D622 | RESISTOR,METAL GLAZED(CHIP) | 100K OHM 1 / 10 W 2012 5.00% D | |
| | | R337 | 0RH2201D622 | RESISTOR,METAL GLAZED(CHIP) | 2.2K OHM 1 / 10 W 2012 5.00% D | |
| | | R338 | 0RH2700D622 | RESISTOR,METAL GLAZED(CHIP) | 270 OHM 1 / 10 W 2012 5.00% D | |
| | | R339 | 0RH2700D622 | RESISTOR,METAL GLAZED(CHIP) | 270 OHM 1 / 10 W 2012 5.00% D | |
| | | R340 | 0RH1802D622 | RESISTOR,METAL GLAZED(CHIP) | 18K OHM 1 / 10 W 2012 5.00% D | |
| | | R342 | 0RH3300D622 | RESISTOR,METAL GLAZED(CHIP) | 330 OHM 1 / 10 W 2012 5.00% D | |
| | | R343 | 0RH3300D622 | RESISTOR,METAL GLAZED(CHIP) | 330 OHM 1 / 10 W 2012 5.00% D | |
| | | R344 | 0RH4700D622 | RESISTOR,METAL GLAZED(CHIP) | 470 OHM 1 / 10 W 2012 5.00% D | |
| | | R345 | 0RH4700D622 | RESISTOR,METAL GLAZED(CHIP) | 470 OHM 1 / 10 W 2012 5.00% D | |
| | | R346 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R347 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R348 | 0RH1504D622 | RESISTOR,METAL GLAZED(CHIP) | 1.5M OHM 1 / 10 W 2012 5.00% D | |
| | | R349 | 0RH1801D622 | RESISTOR,METAL GLAZED(CHIP) | 1.8K OHM 1 / 10 W 2012 5.00% D | |
| | | R350 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R351 | 0RH8203D622 | RESISTOR,METAL GLAZED(CHIP) | 820K OHM 1 / 10 W 2012 5.00% D | |
| | | R352 | 0RH3300D622 | RESISTOR,METAL GLAZED(CHIP) | 330 OHM 1 / 10 W 2012 5.00% D | |
| | | R353 | 0RH3300D622 | RESISTOR,METAL GLAZED(CHIP) | 330 OHM 1 / 10 W 2012 5.00% D | |
| | | R3A2 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | R501 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R502 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R503 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R504 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R505 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R506 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | R508 | 0RH3301D622 | RESISTOR,METAL GLAZED(CHIP) | 3.3K OHM 1 / 10 W 2012 5.00% D | |
| | | R509 | 0RH1801D622 | RESISTOR,METAL GLAZED(CHIP) | 1.8K OHM 1 / 10 W 2012 5.00% D | |
| | | R510 | 0RH2201D622 | RESISTOR,METAL GLAZED(CHIP) | 2.2K OHM 1 / 10 W 2012 5.00% D | |
| | | R511 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R512 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R513 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R514 | 0RH1203D622 | RESISTOR,METAL GLAZED(CHIP) | 120K OHM 1 / 10 W 2012 5.00% D | |
| | | R515 | 0RH2700D622 | RESISTOR,METAL GLAZED(CHIP) | 270 OHM 1 / 10 W 2012 5.00% D | |
| | | R516 | 0RH4703D622 | RESISTOR,METAL GLAZED(CHIP) | 470K OHM 1 / 10 W 2012 5.00% D | |
| | | R517 | 0RH4700D622 | RESISTOR,METAL GLAZED(CHIP) | 470 OHM 1 / 10 W 2012 5.00% D | |
| | | R518 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R520 | 0RH3901D622 | RESISTOR,METAL GLAZED(CHIP) | 3.9K OHM 1 / 10 W 2012 5.00% D | |
| | | R521 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R522 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R523 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R524 | 0RH0222D622 | RESISTOR,METAL GLAZED(CHIP) | 22 OHM 1 / 10 W 2012 5.00% D | |
| | | R525 | 0RH5601D622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 10 W 2012 5.00% D | |
| | | R526 | 0RH5601D622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 10 W 2012 5.00% D | |
| | | R527 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R528 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R529 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R530 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | R531 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R535 | 0RH4703D622 | RESISTOR,METAL GLAZED(CHIP) | 470K OHM 1 / 10 W 2012 5.00% D | |
| | | R542 | 0RH2201D622 | RESISTOR,METAL GLAZED(CHIP) | 2.2K OHM 1 / 10 W 2012 5.00% D | |
| | | R543 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R544 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R545 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | R546 | 0RH5601D622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 10 W 2012 5.00% D | |
| | | R547 | 0RH1202D622 | RESISTOR,METAL GLAZED(CHIP) | 12K OHM 1 / 10 W 2012 5.00% D | |
| | | R548 | 0RH1003D622 | RESISTOR,METAL GLAZED(CHIP) | 100K OHM 1 / 10 W 2012 5.00% D | |
| | | R550 | 0RH2200D622 | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 10 W 2012 5.00% D | |
| | | R553 | 0RH2200D622 | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 10 W 2012 5.00% D | |
| | | R554 | 0RH3300D622 | RESISTOR,METAL GLAZED(CHIP) | 330 OHM 1 / 10 W 2012 5.00% D | |
| | | R555 | 0RH2200D622 | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 10 W 2012 5.00% D | |
| | | R556 | 0RH2202D622 | RESISTOR,METAL GLAZED(CHIP) | 22K OHM 1 / 10 W 2012 5.00% D | |
| | | R557 | 0RH2702D622 | RESISTOR,METAL GLAZED(CHIP) | 27K OHM 1 / 10 W 2012 5.00% D | |
| | | R558 | 0RH2202D622 | RESISTOR,METAL GLAZED(CHIP) | 22K OHM 1 / 10 W 2012 5.00% D | |
| | | R559 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R560 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R561 | 0RH5600D622 | RESISTOR,METAL GLAZED(CHIP) | 560 OHM 1 / 10 W 2012 5.00% D | |
| | | R562 | 0RH5600D622 | RESISTOR,METAL GLAZED(CHIP) | 560 OHM 1 / 10 W 2012 5.00% D | |
| | | R563 | 0RH5601D622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 10 W 2012 5.00% D | |
| | | R564 | 0RH2702D622 | RESISTOR,METAL GLAZED(CHIP) | 27K OHM 1 / 10 W 2012 5.00% D | |
| | | R566 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R567 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R568 | 0RH6802D622 | RESISTOR,METAL GLAZED(CHIP) | 68K OHM 1 / 10 W 2012 5.00% D | |
| | | R569 | 0RH1004D622 | RESISTOR,METAL GLAZED(CHIP) | 1M OHM 1 / 10 W 2012 5.00% D | |
| | | R570 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R575 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R576 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R577 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R578 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R579 | 0RH5602D622 | RESISTOR,METAL GLAZED(CHIP) | 56K OHM 1 / 10 W 2012 5.00% D | |
| | | R582 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R583 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R589 | 0RH1004D622 | RESISTOR,METAL GLAZED(CHIP) | 1M OHM 1 / 10 W 2012 5.00% D | |
| | | R591 | 0RH1003D622 | RESISTOR,METAL GLAZED(CHIP) | 100K OHM 1 / 10 W 2012 5.00% D | |
| | | R5A2 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R5A3 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R5A5 | 0RH4703D622 | RESISTOR,METAL GLAZED(CHIP) | 470K OHM 1 / 10 W 2012 5.00% D | |
| | | R5B3 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R5B4 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R5B5 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R5C1 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R5C5 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R5C6 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R5C7 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R5C9 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R5K6 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R5K7 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R5K8 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R5L1 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | R5P2 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R5P3 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R5R8 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R5S1 | 0RH5601D622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 10 W 2012 5.00% D | |
| | | R5S2 | 0RD3300F608 | RESISTOR,FIXED CARBON FILM | 330 OHM 1/6 W 5% TA26 | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | R705 | 0RH2200D622 | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 10 W 2012 5.00% D | |
| | | R706 | 0RH2200D622 | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 10 W 2012 5.00% D | |
| | | R707 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R710 | 0RH3301D622 | RESISTOR,METAL GLAZED(CHIP) | 3.3K OHM 1 / 10 W 2012 5.00% D | |
| | | R711 | 0RH3301D622 | RESISTOR,METAL GLAZED(CHIP) | 3.3K OHM 1 / 10 W 2012 5.00% D | |
| | | R712 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R713 | 0RH5601D622 | RESISTOR,METAL GLAZED(CHIP) | 5.6K OHM 1 / 10 W 2012 5.00% D | |
| | | R714 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | R715 | 0RH2201D622 | RESISTOR,METAL GLAZED(CHIP) | 2.2K OHM 1 / 10 W 2012 5.00% D | |
| | | R716 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R717 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R718 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R719 | 0RH3300D622 | RESISTOR,METAL GLAZED(CHIP) | 330 OHM 1 / 10 W 2012 5.00% D | |
| | | R7M1 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R7M2 | 0RH2200D622 | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 10 W 2012 5.00% D | |
| | | R7M4 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R7M5 | 0RH2200D622 | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 10 W 2012 5.00% D | |
| | | R7V1 | 0RH1004D622 | RESISTOR,METAL GLAZED(CHIP) | 1M OHM 1 / 10 W 2012 5.00% D | |
| | | R7V2 | 0RH1003D622 | RESISTOR,METAL GLAZED(CHIP) | 100K OHM 1 / 10 W 2012 5.00% D | |
| | | R7V3 | 0RH6801D622 | RESISTOR,METAL GLAZED(CHIP) | 6.8K OHM 1 / 10 W 2012 5.00% D | |
| | | R7V4 | 0RH5603D622 | RESISTOR,METAL GLAZED(CHIP) | 560K OHM 1 / 10 W 2012 5.00% D | |
| | | R7V5 | 0RH6801D622 | RESISTOR,METAL GLAZED(CHIP) | 6.8K OHM 1 / 10 W 2012 5.00% D | |
| | | R7V6 | 0RH5603D622 | RESISTOR,METAL GLAZED(CHIP) | 560K OHM 1 / 10 W 2012 5.00% D | |
| | | R7V7 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R7V8 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R7V9 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R801 | 0RH3304D622 | RESISTOR,METAL GLAZED(CHIP) | 3.3M OHM 1 / 10 W 2012 5.00% D | |
| | | R802 | 0RH3302D622 | RESISTOR,METAL GLAZED(CHIP) | 33K OHM 1 / 10 W 2012 5.00% D | |
| | | R803 | 0RH2701D622 | RESISTOR,METAL GLAZED(CHIP) | 2.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R804 | 0RH3902D622 | RESISTOR,METAL GLAZED(CHIP) | 39K OHM 1 / 10 W 2012 5.00% D | |
| | | R805 | 0RH2701D622 | RESISTOR,METAL GLAZED(CHIP) | 2.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R806 | 0RH3302D622 | RESISTOR,METAL GLAZED(CHIP) | 33K OHM 1 / 10 W 2012 5.00% D | |
| | | R807 | 0RH4700D622 | RESISTOR,METAL GLAZED(CHIP) | 470 OHM 1 / 10 W 2012 5.00% D | |
| | | R808 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R809 | 0RH1802D622 | RESISTOR,METAL GLAZED(CHIP) | 18K OHM 1 / 10 W 2012 5.00% D | |
| | | R810 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R811 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R812 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R821 | 0RH2201D622 | RESISTOR,METAL GLAZED(CHIP) | 2.2K OHM 1 / 10 W 2012 5.00% D | |
| | | R822 | 0RH1003D622 | RESISTOR,METAL GLAZED(CHIP) | 100K OHM 1 / 10 W 2012 5.00% D | |
| | | R823 | 0RH2201D622 | RESISTOR,METAL GLAZED(CHIP) | 2.2K OHM 1 / 10 W 2012 5.00% D | |
| | | R824 | 0RH1003D622 | RESISTOR,METAL GLAZED(CHIP) | 100K OHM 1 / 10 W 2012 5.00% D | |
| | | R825 | 0RH5600D622 | RESISTOR,METAL GLAZED(CHIP) | 560 OHM 1 / 10 W 2012 5.00% D | |
| | | R826 | 0RH5600D622 | RESISTOR,METAL GLAZED(CHIP) | 560 OHM 1 / 10 W 2012 5.00% D | |
| | | R835 | 0RH0752D622 | RESISTOR,METAL GLAZED(CHIP) | 75 OHM 1 / 10 W 2012 5.00% D | |
| | | R841 | 0RH3300D622 | RESISTOR,METAL GLAZED(CHIP) | 330 OHM 1 / 10 W 2012 5.00% D | |
| | | R842 | 0RH3300D622 | RESISTOR,METAL GLAZED(CHIP) | 330 OHM 1 / 10 W 2012 5.00% D | |
| | | R850 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R851 | 0RH1000D622 | RESISTOR,METAL GLAZED(CHIP) | 100 OHM 1 / 10 W 2012 5.00% D | |
| | | R861 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R862 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R863 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R864 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R874 | 0RH0752D622 | RESISTOR,METAL GLAZED(CHIP) | 75 OHM 1 / 10 W 2012 5.00% D | |
| | | R875 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R876 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | R890 | 0RH0752D622 | RESISTOR,METAL GLAZED(CHIP) | 75 OHM 1 / 10 W 2012 5.00% D | |
| | | R901 | 0RH1202D622 | RESISTOR,METAL GLAZED(CHIP) | 12K OHM 1 / 10 W 2012 5.00% D | |
| | | R902 | 0RH1002D622 | RESISTOR,METAL GLAZED(CHIP) | 10K OHM 1 / 10 W 2012 5.00% D | |
| | | R903 | 0RH0752D622 | RESISTOR,METAL GLAZED(CHIP) | 75 OHM 1 / 10 W 2012 5.00% D | |
| | | R904 | 0RH5600D622 | RESISTOR,METAL GLAZED(CHIP) | 560 OHM 1 / 10 W 2012 5.00% D | |
| | | R905 | 0RH5600D622 | RESISTOR,METAL GLAZED(CHIP) | 560 OHM 1 / 10 W 2012 5.00% D | |
| | | R906 | 0RH5600D622 | RESISTOR,METAL GLAZED(CHIP) | 560 OHM 1 / 10 W 2012 5.00% D | |
| | | R907 | 0RH5600D622 | RESISTOR,METAL GLAZED(CHIP) | 560 OHM 1 / 10 W 2012 5.00% D | |
| | | R908 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | R909 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | R910 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | R911 | 0RH1001D622 | RESISTOR,METAL GLAZED(CHIP) | 1K OHM 1 / 10 W 2012 5.00% D | |
| | | R913 | 0RH0752D622 | RESISTOR,METAL GLAZED(CHIP) | 75 OHM 1 / 10 W 2012 5.00% D | |
| | | R914 | 0RH0752D622 | RESISTOR,METAL GLAZED(CHIP) | 75 OHM 1 / 10 W 2012 5.00% D | |
| | | R919 | 0RH4701D622 | RESISTOR,METAL GLAZED(CHIP) | 4.7K OHM 1 / 10 W 2012 5.00% D | |
| | | R920 | 0RH6800D622 | RESISTOR,METAL GLAZED(CHIP) | 680 OHM 1 / 10 W 2012 5.00% D | |
| | | R927 | 0RH0752D622 | RESISTOR,METAL GLAZED(CHIP) | 75 OHM 1 / 10 W 2012 5.00% D | |
| | | R928 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | R929 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | R930 | 0RH0000D622 | RESISTOR,METAL GLAZED(CHIP) | 0 OHM 1 / 10 W 2012 5.00% D | |
| | | R931 | 0RH2200D622 | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 10 W 2012 5.00% D | |
| | | R932 | 0RH2200D622 | RESISTOR,METAL GLAZED(CHIP) | 220 OHM 1 / 10 W 2012 5.00% D | |
| | | R933 | 0RH1003D622 | RESISTOR,METAL GLAZED(CHIP) | 100K OHM 1 / 10 W 2012 5.00% D | |
| | | R934 | 0RH1003D622 | RESISTOR,METAL GLAZED(CHIP) | 100K OHM 1 / 10 W 2012 5.00% D | |
| | | RS50 | 6500RAB003A | SENSOR | SG-260 KODENSHI D33 REEL SENSO | |
| | | RS50 | 6500RAB007A | SENSOR | GP1S566V SHARP REEL SENSOR OF | |
| | | RS50 | 6500RAB003A | SENSOR | SG-260 KODENSHI D33 REEL SENSO | |
| | | RS50 | 6500RAB007A | SENSOR | GP1S566V SHARP REEL SENSOR OF | |
| | | SC90 | 6620RM0002J | JACK,SCART | DSAM-0121 DOOWON 2F-21P(BL-BK) | |
| | | TU70 | 6700PFPL06F | TUNER | TADC-M401D(GKI,LGIT) LG INOTEK | |
| | | W714 | 0LA0101K018 | INDUCTOR AXIAL LEAD | 1.0M K 2.3X3.4 L5 TP | |
| | | W901 | 0LA0101K018 | INDUCTOR AXIAL LEAD | 1.0M K 2.3X3.4 L5 TP | |
| | | W902 | 0LA0101K018 | INDUCTOR AXIAL LEAD | 1.0M K 2.3X3.4 L5 TP | |
| | | W903 | 0LA0101K018 | INDUCTOR AXIAL LEAD | 1.0M K 2.3X3.4 L5 TP | |
| | | X301 | 6202R2443AE | RESONATOR,CRYSTAL | HC49U SSANG TAE 4433709HZ 15 | |
| | | X301 | 6202R2443AG | RESONATOR,CRYSTAL | HC49U SSANGTAE 4-433709MHZ 1 | |
| | | X301 | 6202R2443AC | RESONATOR,CRYSTAL | HC49U BUBANG 4-433709MHZ 15P | |
| | | X501 | 6212AA2100C | RESONATOR,CRYSTAL | HC-49S BUBANG 10MHZ +/- 30 PPM | |
| | | X501 | 6202R31001F | RESONATOR,CRYSTAL | HC-49S KEUMSEOK 10-0000MHZ 30P | |
| | | X502 | 6202R-DA01B | RESONATOR,CRYSTAL | CFS-308 CITIZEN 32.768KHZ +/- | |
| | | X502 | 6212AC2327E | RESONATOR,CRYSTAL | C-001R SEIKO EPSON 32.768 KHZ | |
| | | X751 | 529-021Q | RESONATOR,CRYSTAL | 49U BUBANG 18432000HZ 30PPM 16 | |
| | | X751 | 6212AA2184F | RESONATOR,CRYSTAL | HC-49U KYUNGIL 18.432MHZ +/- 3 | |
| | | *** PWB(PCB) ASSEMBLY , TOTAL POWER *** | | | | |
| | | A48 | 6871R-7112A | PWB(PCB) ASSEMBLY,TOTAL | X360,DIGITRON POWER(DI) | |
| | | BD01 | 636-004C | FILTER(CIRC),EMC | BEAD CORE BFS3550R2FD8,R T/P | |
| | | BD10 | 0DD160000DA | DIODE | S1WBA60(1A 600V) SHIDENKEN | |
| ⚠ | | C101 | 624-088L | CAPACITOR,DRAWING | 435D SUNIL ELECTRONICS 0.1UF/2 | |
| ⚠ | | C102 | 624-088L | CAPACITOR,DRAWING | 435D SUNIL ELECTRONICS 0.1UF/2 | |
| | | C103 | 624-082C | CAPACITOR,AL.ELECTROLYTIC | 100MF/400V SHL SMPS S/Y | |
| | | C104 | 0CQ2232K409 | CAPACITOR,FIXED FILM | 0.022UF S 50V J PE TP | |
| | | C105 | 0CQ1031Y519 | CAPACITOR,POLYESTER | 0.01UF D 630V K PE NI TP | |
| | | C106 | 624-087B | CAPACITOR | HIGH-VOL 100P/1KV SMPS SAMHWA | |
| | | C109 | 0CE1066K618 | CAPACITOR,ELECTROLYTIC | 10M SMS 50V M FM5 TP(5) | |
| ⚠ | | C110 | 0CG1020U630 | CAPACITOR,SEMI CERAMIC | 1000PF 400V M E(Z5U) R | |
| ⚠ | | C111 | 0CG2220U630 | CAPACITOR,SEMI CERAMIC | 2200 PF 400V M E R (NK,AD,SD) | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | C112 | 0CN223AK948 | CAPACITOR,TUBULAR(HIGH DIELEC) | 0.022UF 50V Z F TA26 S | |
| | | C117 | 0CE337EK630 | CAPACITOR,AL.ELECTROLYTIC | 330UF KMG 50V M FM5 BULK | |
| | | C121 | 0CE2276F638 | CAPACITOR,ELECTROLYTIC | 220U SMS 16V M FM5 TP(5) | |
| | | C123 | 0CE477BH630 | CAPACITOR,AL.ELECTROLYTIC | 470UF KME TYPE 25V M FM5 BULK | |
| | | C126 | 0CE2276H638 | CAPACITOR,FIXED ELECTROLYTIC | 220UF SMS,SG 25V 20% FM5 TP 5 | |
| | | C127 | 0CE108BF630 | CAPACITOR,FIXED ELECTROLYTIC | 1000UF KME 16V M FM5 BULK | |
| | | C128 | 0CE3376D638 | CAPACITOR,ELECTROLYTIC | 330UF SMS 10V M FM5 TP5 | |
| | | C129 | 0CE228BF630 | CAPACITOR,FIXED ELECTROLYTIC | 2200UF KME TYPE 16V 20% FM5 BU | |
| | | C130 | 624-085D | CAPACITOR | CE 47UF/50V KME (SMPS) | |
| | | C131 | 624-082H | CAPACITOR | CE 1000UF/10V SHL(10*12.5)T/P | |
| | | C132 | 624-085D | CAPACITOR | CE 47UF/50V KME (SMPS) | |
| | | C133 | 0CQ1042K409 | CAPACITOR,FIXED FILM | 0.1UF S 50V J PE TP | |
| | | C135 | 0CN4710K518 | CAPACITOR TUBULA(HIGH DIELE) | 470P 50V K B TA26 | |
| | | C151 | 0CE4754K638 | CAPACITOR,FIXED ELECTROLYTIC | 4.7UF SRA,SS 50V 20% FM5 TP 5 | |
| | | C152 | 0CE4754K638 | CAPACITOR,FIXED ELECTROLYTIC | 4.7UF SRA,SS 50V 20% FM5 TP 5 | |
| | | C153 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C154 | 0CE1074F638 | CAPACITOR,ELECTROLYTIC | 100U SRA 16V M FM5 TP(5) | |
| | | C155 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C156 | 0CE4754K638 | CAPACITOR,FIXED ELECTROLYTIC | 4.7UF SRA,SS 50V 20% FM5 TP 5 | |
| | | C161 | 0CE4763F638 | CAPACITOR,ELECTROLYTIC | 47M SRE 16V M FM5 TP(5) | |
| | | C163 | 624-087H | CAPACITOR | HIGH-VOL 220PF/1KV CERAMIC | |
| | | D101 | 0DD010009CA | DIODE,RECTIFIER | EG01CW(R-FORM 5MM) TP SANKEN | |
| | | D101 | 0DD221009AA | DIODE,RECTIFIERS | ERA22-10 KFLB,TP ,R T/P,FUJI | |
| | | D102 | 0DD010009AC | DIODE | EU01W(R-FORM) TP SANKEN | |
| | | D103 | 0DD133009AA | DIODE,SWITCHING | 1SS133 DETECT,SW TP | |
| | | D106 | 0DD010009AC | DIODE | EU01W(R-FORM) TP SANKEN | |
| | | D107 | 0DR104009BA | DIODE,RECTIFIER | RL104F TP RECTRON NON 400V 1A | |
| | | D108 | 0DD010009AC | DIODE | EU01W(R-FORM) TP SANKEN | |
| | | D110 | 0DR302000AB | DIODE,RECTIFIER | HER302 BK RECTRON DO201AD 100V | |
| | | D111 | 0DR158220AA | DIODE,RECTIFIER | 1N5822 BK RECTRON DO201AD 40V | |
| | | D112 | 0DR158220AA | DIODE,RECTIFIER | 1N5822 BK RECTRON DO201AD 40V | |
| | | D113 | 0DR104009BA | DIODE,RECTIFIER | RL104F TP RECTRON NON 400V 1A | |
| | | D114 | 0DR104009AB | DIODE,RECTIFIER | RL104 R. TP GULF SEMICONDUCTOR | |
| | | D117 | 0DR104009AB | DIODE,RECTIFIER | RL104 R. TP GULF SEMICONDUCTOR | |
| | | D121 | 0DD133009AA | DIODE,SWITCHING | 1SS133 DETECT,SW TP | |
| ⚠ | | F101 | 0FS1601B51D | FUSE,SLOW BLOW | 1600MA 250 V 5.2X20 CY/GL KS/J | |
| ⚠ | | F101 | 585-011T | FUSE,SLOW BLOW | 1600MA 250 V 5.2X20 CY/GL SEMK | |
| | | F102 | GIRH200000B | IC,ROHM | ICP-N20 T104 TP IC DETACT | |
| | | IC10 | 0IPMGSK001A | IC,POWER MANAGEMENT | STR-G6351L SANKEN 5PIN TO220 S | |
| | | IC10 | 0IPMGSK002A | IC,POWER MANAGEMENT | STR-G6352T SANKEN 5PIN TO220 S | |
| | | IC10 | 657-063A | SENSOR | LTV-817B,PHOTO COUPLER(LITEON) | |
| | | IC10 | 0IKE431000A | IC,KEC | KIA431 3 PIN TP | |
| | | IC15 | 0IPMGKE008B | IC,POWER MANAGEMENT | KIA78R08PI CU KEC 4P TO-220IS | |
| | | IC15 | 0IPMGFA046A | IC,POWER MANAGEMENT | KA278R33TSTU FAIRCHILD 4PIN TO | |
| | | IC15 | 0IPMGKE022B | IC,POWER MANAGEMENT | KIA278R33PI-CU KEC 4PIN TO-220 | |
| ⚠ | | L102 | 616-145P | FILTER(CIRC),DRAWING | LFSQ2215V4-04220B SAMWAH TECOM | |
| | | L122 | 633-088G | COIL,CHOKE | CHOCK(22MH) 5MM TOKO TP | |
| | | L123 | 633-088G | COIL,CHOKE | CHOCK(22MH) 5MM TOKO TP | |
| | | L124 | 633-088G | COIL,CHOKE | CHOCK(22MH) 5MM TOKO TP | |
| | | Q153 | 0TR220309AF | TRANSISTOR | SRA2203 TP AUK TO92 22K,22K | |
| | | Q154 | 0TR534309BA | TRANSISTOR | 2SC5343-L TP AUK TO92 | |
| | | Q155 | 0TR141409AA | TRANSISTOR | KTD1414(TO220IS) CUTING TP KEC | |
| | | Q156 | 0TR534409AA | TRANSISTOR | 2SC5344Y TP | |
| | | Q156 | 0TR320509AB | TRANSISTOR | KTC3205-TP-Y (KTC2236A)KEC | |
| | | Q160 | 0TR928009AD | TRANSISTOR | KSA928A-Y,TO-92L TP SAMSUNG TO | |
| | | Q160 | 0TR127309AA | TRANSISTOR | KTA1273-TP-Y (KTA966A)KEC | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | Q161 | 0TR126809BA | TRANSISTOR,BIPOLARS | KTA1268-BL TP KEC | |
| | | Q162 | 0TR534309BA | TRANSISTOR | 2SC5343-L TP AUK TO92 | |
| | | R100 | 0RD1504H632 | RESISTOR,FIXED CARBON FILM | 1.5M OHM 1/2 W 5.00% MF10 | |
| | | R101 | 614-007A | RESISTOR | 2.7/2W CEMENT SMPS V | |
| | | R104 | 0RS5602K619 | RESISTOR,FIXED METAL OXIDE FIL | 56K OHM 2 W 5.00% TR | |
| | | R105 | 0RD0472F608 | RESISTOR,FIXED CARBON FILM | 47 OHM 1/6 W 5% TA26 | |
| | | R106 | 0RD1803F608 | RESISTOR,FIXED CARBON FILM | 180K OHM 1/6 W 0.05 TA26 | |
| | | R107 | 0RD1803F608 | RESISTOR,FIXED CARBON FILM | 180K OHM 1/6 W 0.05 TA26 | |
| | | R110 | 0RD4701F608 | RESISTOR,FIXED CARBON FILM | 4.7K OHM 1/6 W 5% TA26 | |
| | | R111 | 0RD1003F608 | RESISTOR,FIXED CARBON FILM | 100K OHM 1/6 W 5% TA26 | |
| | | R112 | 0RD2200F608 | RESISTOR,FIXED CARBON FILM | 220 OHM 1/6 W 5% TA26 | |
| | | R113 | 0RD3901F608 | RESISTOR,FIXED CARBON FILM | 3.9K OHM 1/6 W 5% TA26 | |
| | | R114 | 0RD1001F608 | RESISTOR,FIXED CARBON FILM | 1K OHM 1/6 W 5% TA26 | |
| | | R115 | 0RN3301F408 | RESISTOR,FIXED METAL FILM | 3.3K OHM 1/6 W 1% TA26 | |
| | | R116 | 0RN2701F408 | RESISTOR,FIXED METAL FILM | 2.7K OHM 1/6 W 1% TA26 | |
| | | R117 | 0RD2700F608 | RESISTOR,FIXED CARBON FILM | 270 OHM 1/6 W 5% TA26 | |
| | | R118 | 0RD1003F608 | RESISTOR,FIXED CARBON FILM | 100K OHM 1/6 W 5% TA26 | |
| | | R119 | 0RD1003F608 | RESISTOR,FIXED CARBON FILM | 100K OHM 1/6 W 5% TA26 | |
| | | R124 | 0RS0350K619 | RESISTOR,FIXED METAL OXIDE FIL | 0.35 OHM 2 W 5.00% TR | |
| | | R125 | 0RD4701F608 | RESISTOR,FIXED CARBON FILM | 4.7K OHM 1/6 W 5% TA26 | |
| | | R126 | 0RD6800F608 | RESISTOR,FIXED CARBON FILM | 680 OHM 1/6 W 5% TA26 | |
| | | R130 | 0RD1003F608 | RESISTOR,FIXED CARBON FILM | 100K OHM 1/6 W 5% TA26 | |
| | | R131 | 0RD2202F608 | RESISTOR,FIXED CARBON FILM | 22K OHM 1/6 W 5% TA26 | |
| | | R151 | 0RD5601F608 | RESISTOR,FIXED CARBON FILM | 5.6K OHM 1/6 W 5% TA26 | |
| | | R152 | 0RD5601F608 | RESISTOR,FIXED CARBON FILM | 5.6K OHM 1/6 W 5% TA26 | |
| | | R153 | 0RD4701F608 | RESISTOR,FIXED CARBON FILM | 4.7K OHM 1/6 W 5% TA26 | |
| | | R154 | 0RD1001F608 | RESISTOR,FIXED CARBON FILM | 1K OHM 1/6 W 5% TA26 | |
| | | R155 | 0RD1802F608 | RESISTOR,FIXED CARBON FILM | 18K OHM 1/6 W 5% TA26 | |
| | | R156 | 0RD1002F608 | RESISTOR,FIXED CARBON FILM | 10K OHM 1/6 W 5% TA26 | |
| | | R157 | 0RD1001F608 | RESISTOR,FIXED CARBON FILM | 1K OHM 1/6 W 5% TA26 | |
| | | R158 | 0RD3300F608 | RESISTOR,FIXED CARBON FILM | 330 OHM 1/6 W 5% TA26 | |
| | | R159 | 0RD3300F608 | RESISTOR,FIXED CARBON FILM | 330 OHM 1/6 W 5% TA26 | |
| | | R164 | 0RD4701F608 | RESISTOR,FIXED CARBON FILM | 4.7K OHM 1/6 W 5% TA26 | |
| | | R167 | 0RD0222F608 | RESISTOR,FIXED CARBON FILM | 22 OHM 1/6 W 5% TA26 | |
| | | R168 | 0RD0222F608 | RESISTOR,FIXED CARBON FILM | 22 OHM 1/6 W 5% TA26 | |
| | | R170 | 0RD1002F608 | RESISTOR,FIXED CARBON FILM | 10K OHM 1/6 W 5% TA26 | |
| | | R171 | 0RD4701F608 | RESISTOR,FIXED CARBON FILM | 4.7K OHM 1/6 W 5% TA26 | |
| | | R172 | 0RD4701F608 | RESISTOR,FIXED CARBON FILM | 4.7K OHM 1/6 W 5% TA26 | |
| | | T101 | 6170RNGW12C | TRANSFORMER,SMPS[COIL] | EER3534, 22PIN 580UH SAMHWA CO | |
| | | V101 | 656-004C | VARISTOR,DRAWING | SVC681D-10A SAMHWA 4.O CUT | |
| | | ZD10 | 0DZ330009BF | DIODE,ZENER | GDZJ3.3B TP GRANDE DO34 0.5W 3 | |
| | | ZD10 | 0DZ332609FA | DIODE,ZENER | UZ-3.3BSB 26MM TP PYUNG CHANG | |
| | | ZD10 | 0DZ337729AA | DIODE,ZENER | MTZ3.3B,T-77(26MMTP) TP | |
| | | ZD10 | 0DZ330009CD | DIODE,ZENER | MTZJ3.3B TP ROHM-K DO34 0.5W 3 | |
| | | ZD10 | 0DZ130009AA | DIODE,ZENER | MTZ13A TP ROHM-K | |
| | | ZD10 | 0DZ300000MB | DIODE,ZENERS | UZ-30BSC 26MM PYUNG CHANG TP D | |
| | | *** BOARD ASSEMBLY , TIMER *** | | | | |
| | | A49 | 3501R-9098B | BOARD ASSEMBLY | VCR 2003 COMBI 4TOOL (DIGITRON | |
| | | C601 | 0CE1064F638 | CAPACITOR,ELECTROLYTIC | 10M SRA 16V M FM5 TP(5) | |
| | | C602 | 0CE4775C638 | CAPACITOR,FIXED ELECTROLYTIC | 470UF SR,SV 6.3V 20% FM5 TP 5 | |
| | | C603 | 0CN223AK948 | CAPACITOR,TUBULAR(HIGH DIELEC) | 0.022UF 50V Z F TA26 S | |
| | | DIG6 | 6302RCV118A | DIGITRON | VFD25-1104 ZEC SEG VFD DVD/VCR | |
| | | DIG6 | 6302R-V123A | DIGITRON | 11-MT-134GK FUTABA SEG VFD DVD | |
| | | DIG6 | 6302R-V121A | DIGITRON | HNV-11SS41 SS SDI SEG VFD DVD | |
| | | IC60 | 0IPRPNE001A | IC,PERIPHERALS | UPD16315GB-3BS NEC 44 QFP BK F | |
| | | IC60 | 0IPRPPY002A | IC,PERIPHERALS | PT6315 PTC 44 LQFP TRAY VFD DR | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | L601 | 0LR8200J025 | INDUCTOR,RADIAL LEAD | 820UH 5% 4X5 TR5 | |
| | | LED6 | 0DL112000AK | DIODE,LED | DL-11S2GNS(SUPPER,GREEN,03)KOC | |
| | | LED6 | 0DL342009DA | LED | SLR-342YY TP ROHM YELLOW 10 | |
| | | R601 | 0RD1001F608 | RESISTOR,FIXED CARBON FILM | 1K OHM 1/6 W 5% TA26 | |
| | | R602 | 0RD1001F608 | RESISTOR,FIXED CARBON FILM | 1K OHM 1/6 W 5% TA26 | |
| | | R603 | 0RD1001F608 | RESISTOR,FIXED CARBON FILM | 1K OHM 1/6 W 5% TA26 | |
| | | R604 | 0RD5602F608 | RESISTOR,FIXED CARBON FILM | 56K OHM 1/6 W 5% TA26 | |
| | | R605 | 0RD3300F608 | RESISTOR,FIXED CARBON FILM | 330 OHM 1/6 W 5% TA26 | |
| | | R611 | 0RD6800F608 | RESISTOR,FIXED CARBON FILM | 680 OHM 1/6 W 5% TA26 | |
| | | R612 | 0RD8200F608 | RESISTOR,FIXED CARBON FILM | 820 OHM 1/6 W 5% TA26 | |
| | | R613 | 0RD1201F608 | RESISTOR,FIXED CARBON FILM | 1.2K OHM 1/6 W 5% TA26 | |
| | | R614 | 0RD1501F608 | RESISTOR,FIXED CARBON FILM | 1.5K OHM 1/6 W 5% TA26 | |
| | | R615 | 0RD2201F608 | RESISTOR,FIXED CARBON FILM | 2.2K OHM 1/6 W 5% TA26 | |
| | | R616 | 0RD3301F608 | RESISTOR,FIXED CARBON FILM | 3.3K OHM 1/6 W 5% TA26 | |
| | | R617 | 0RD4701F608 | RESISTOR,FIXED CARBON FILM | 4.7K OHM 1/6 W 5% TA26 | |
| | | R621 | 0RD2701F608 | RESISTOR,FIXED CARBON FILM | 2.7K OHM 1/6 W 5% TA26 | |
| | | R622 | 0RD1501F608 | RESISTOR,FIXED CARBON FILM | 1.5K OHM 1/6 W 5% TA26 | |
| | | R630 | 0RD1500F608 | RESISTOR,FIXED CARBON FILM | 150 OHM 1/6 W 5% TA26 | |
| | | R631 | 0RD1500F608 | RESISTOR,FIXED CARBON FILM | 150 OHM 1/6 W 5% TA26 | |
| | | RC60 | 6712R1638GB | REMOTE CONTROLLER RECEIVER | TSOP4438RF1 VISHAY 38KHZ =TSOP | |
| | | SW60 | 556-219B | SWITCH,TACT | THVV502GAA POSTECH DC 12 V 5- | |
| | | SW60 | 556-219B | SWITCH,TACT | THVV502GAA POSTECH DC 12 V 5- | |
| | | SW60 | 556-219B | SWITCH,TACT | THVV502GAA POSTECH DC 12 V 5- | |
| | | SW60 | 556-219B | SWITCH,TACT | THVV502GAA POSTECH DC 12 V 5- | |
| | | SW60 | 556-219B | SWITCH,TACT | THVV502GAA POSTECH DC 12 V 5- | |
| | | SW60 | 556-219B | SWITCH,TACT | THVV502GAA POSTECH DC 12 V 5- | |
| | | SW60 | 556-219B | SWITCH,TACT | THVV502GAA POSTECH DC 12 V 5- | |
| | | SW61 | 556-219B | SWITCH,TACT | THVV502GAA POSTECH DC 12 V 5- | |
| | | SW61 | 556-219B | SWITCH,TACT | THVV502GAA POSTECH DC 12 V 5- | |
| | | *** BOARD ASSEMBLY , KEY *** | | | | |
| | | A42 | 3501R-9099B | BOARD ASSEMBLY | VCR 4TOOL KEY (DI) | |
| | | C613 | 0CN1020K518 | CAPACITOR TUBULA(HIGH DIELE) | 1000P 50V K B TA26 | |
| | | C614 | 0CN1020K518 | CAPACITOR TUBULA(HIGH DIELE) | 1000P 50V K B TA26 | |
| | | JK60 | 572-034D | JACK,RCA | JPJ1022-01-040 HOSIDEN (YL) | |
| | | JK60 | 572-034C | JACK,RCA | JPJ1022-01-030 HOSIDEN (WH) | |
| | | JK60 | 572-034B | JACK,RCA | JPJ1022-01-020 HOSIDEN (RED) | |
| | | L602 | 0LA1000K018 | INDUCTOR AXIAL LEAD | 100M K 2.3X3.4 L5 TP | |
| | | L603 | 0LA1000K018 | INDUCTOR AXIAL LEAD | 100M K 2.3X3.4 L5 TP | |
| | | R618 | 0RD8201F608 | RESISTOR,FIXED CARBON FILM | 8.2K OHM 1/6 W 5% TA26 | |
| | | R619 | 0RD1502F608 | RESISTOR,FIXED CARBON FILM | 15K OHM 1/6 W 5% TA26 | |
| | | R620 | 0RD2702F608 | RESISTOR,FIXED CARBON FILM | 27K OHM 1/6 W 5% TA26 | |
| | | R623 | 0RD6800F608 | RESISTOR,FIXED CARBON FILM | 680 OHM 1/6 W 5% TA26 | |
| | | R624 | 0RD8200F608 | RESISTOR,FIXED CARBON FILM | 820 OHM 1/6 W 5% TA26 | |
| | | R641 | 0RD0752F608 | RESISTOR,FIXED CARBON FILM | 75 OHM 1/6 W 5.00% TA26 | |
| | | SW60 | 556-219B | SWITCH,TACT | THVV502GAA POSTECH DC 12 V 5- | |
| | | SW60 | 556-219B | SWITCH,TACT | THVV502GAA POSTECH DC 12 V 5- | |
| | | SW61 | 556-219B | SWITCH,TACT | THVV502GAA POSTECH DC 12 V 5- | |
| | | SW61 | 556-219B | SWITCH,TACT | THVV502GAA POSTECH DC 12 V 5- | |
| | | SW61 | 556-219B | SWITCH,TACT | THVV502GAA POSTECH DC 12 V 5- | |
| | | SW61 | 556-219B | SWITCH,TACT | THVV502GAA POSTECH DC 12 V 5- | |
| | | SW61 | 556-219B | SWITCH,TACT | THVV502GAA POSTECH DC 12 V 5- | |
| | | *** DECK ASSEMBLY(VCR) *** | | | | |
| | | A00 | 6721RF0751B | DECK ASSEMBLY,VIDEO | D35(M) DI (4HF, PAL, AHC(O), B | NSP |
| | | A01 | 6723R-0403C | DRUM(CIRC) ASSEMBLY | D35-6CH PAL (8P6C) | |
| | | A03 | 4261R-0025A | ARM ASSY | CLEANER | |
| | | A04 | 4811RF0038A | BRACKET ASSEMBLY | L/D(S) | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
| | | A04 | 4811RF0038B | BRACKET ASSEMBLY | L/D(M) - DI | |
| | | A11 | 4471R-0005A | GEAR ASSY | P3 | |
| | | A12 | 4471R-0004A | GEAR ASSY | P2 | |
| | | A21 | 4931R-0047A | HOLDER ASSY | CST | |
| | | A22 | 4471R-0006A | GEAR ASSY | RACK F/L | |
| | | A23 | 4261R-0023A | ARM ASSY | F/L | |
| | | A24 | 4510R-0046A | LEVER | ASSY SWITCH | |
| | | 001 | 6723R-0306C | DRUM(CIRC) ASSEMBLY | SUB D35-6CH (8P6C) | NSP |
| | | 002 | 4680R-B008A | MOTOR(MECH) | DRUM VH4302-800 SANYO FOR D35K | |
| | | 002 | 4680R-B005A | MOTOR(MECH) | DRUM I2OAL05 SEJIN-SANKYO ICLE | |
| | | 002 | 4680R-B009A | MOTOR(MECH) | DRUM I2OAL21 SANKYO FOR D35K | |
| | | 002 | 4680R-B007A | MOTOR(MECH) | DRUM MDVC-035AA LGIT FOR D-35, | |
| | | 002 | 4680R-B003B | MOTOR(MECH) | DRUM VH4301 KUMAGAYA DRUM MOTO | |
| | | 002A | 5202R00002C | BRUSH,CARBON | ASSY D33 (TIP+2 SPRING) 1.4, | |
| | | 003 | 4930R-0284A | HOLDER | FPC(6CH) | |
| | | 004 | 5006R-0034A | CAP | FPC | |
| | | 006 | 4580R-0004A | ROLLER | CLEANER | NSP |
| | | 007 | 4260R-0039A | ARM | CLEANER | NSP |
| | | 008 | 6850R-HG18Z | CABLE,FLAT | P=1.25 FFC UL2896(0.05X0.8) 7 | |
| | | 009 | 4260R-0038A | ARM | T/UP(D35) | |
| | | 010 | 4810R-0125A | BRACKET | CHASSIS | |
| | | 011 | 4261R-0022A | ARM ASSY | TENSION(D35) | |
| | | 012 | 3041R-0037A | BASE ASSY | P2 | |
| | | 013 | 3041R-0038A | BASE ASSY | P3 | |
| | | 014 | 3041R-0039A | BASE ASSY | P4 | |
| | | 015 | 5870R-0005A | OPENER | LID(D35) | |
| | | 016 | 3041R-0036B | BASE ASSEMBLY | A/C HEAD (TDK) | |
| | | 016 | 3041R-0036A | BASE ASSEMBLY | A/C HEAD (ALPS) | |
| | | 017 | 4408R-0003A | REEL | S | |
| | | 018 | 4970R-0140A | SPRING | COIL RS D35 | |
| | | 019 | 4421R-0008A | BRAKE ASSEMBLY | RS | |
| | | 020 | 4970R-0128A | SPRING | COIL D35 (TB) | |
| | | 021 | 4421R-0006A | BRAKE ASSY | T | |
| | | 022 | 6520D00001A | HEAD(CIRC) | D35 FE TDK FE HEAD | |
| | | 022 | 6520D00002A | HEAD(CIRC) | D35 FE ST FE HEAD | |
| | | 023 | 3040R-0057A | BASE | LOADING | |
| | | 024 | 4261R-0024A | ARM ASSEMBLY | IDLER (H) | |
| | | 025 | 4810R-0118A | BRACKET | L/D(S) | NSP |
| | | 026 | 4680R-D002A | MOTOR(MECH) | LOADING MDB2B66 SANKYO D35 ASP | NSP |
| | | 027 | 4470R-0093A | GEAR | WHEEL | NSP |
| | | 028 | 4408R-0004A | REEL | T | |
| | | 029 | 4261R-0019C | ARM ASSEMBLY | DECK/MECHA PINCH | |
| | | 029 | 4261R-0019D | ARM ASSEMBLY | DECK/MECHA PINCH | |
| | | 029 | 4261R-0019B | ARM ASSEMBLY | PINCH | |
| | | 029 | 4261R-0019A | ARM ASSEMBLY | DECK/MECHA PINCH | |
| | | 030 | 4510R-0043A | LEVER | T/UP | |
| | | 031 | 4970R-0123A | SPRING | COIL TENSION(D35) | |
| | | 032 | 3141R-0040A | CHASSIS ASSY | D35 | NSP |
| | | 051 | 4400R-0005A | BELT | CAPSTAN | |
| | | 052 | 4680R-A006A | MOTOR(MECH) | CAPSTAN MCVC-035AA LGIT BLDC 3 | |
| | | 052 | 4680R-A007A | MOTOR(MECH) | CAPSTAN F2QVB06 SANKYO D35 ASR | |
| | | 052 | 4680R-A008A | MOTOR(MECH) | CAPSTAN SAMSUNG DMVCMC09L D35 | |
| | | 052A | 4980R-0023A | SUPPORTER | CAPSTAN(D35) | |
| | | 054 | 4470R-0100A | GEAR | RACK F/L | |
| | | 054A | 4970R-0124B | SPRING | COIL D35 (RACK F/L) | |
| | | 055 | 4470R-0097A | GEAR | DRIVE(D35) | |

| S | AL | LOCA. NO. | LG PART NO. | DESCRIPTION | SPECIFICATION | REMARKS |
|---|---|---|---|---|---|---|
|  |  | 056 | 4470R-0096A | GEAR | CAM(D35) |  |
|  |  | 058 | 4421R-0007A | BRAKE ASSY | CAPSTAN |  |
|  |  | 060 | 4510R-0040A | LEVER | F/R(D35) |  |
|  |  | 061 | 4265R-0005A | CLUTCH ASSEMBLY | D35 (M) |  |
|  |  | 064 | 4470R-0098A | GEAR | SECTOR(D35) |  |
|  |  | 065 | 4261R-0021A | ARM ASSY | P3 | NSP |
|  |  | 066 | 4970R-0122A | SPRING | COIL D35 | NSP |
|  |  | 067 | 4470R-0095A | GEAR | P3 | NSP |
|  |  | 068 | 4470R-0094A | GEAR | P2 | NSP |
|  |  | 069 | 4970R-0122A | SPRING | COIL D35 | NSP |
|  |  | 070 | 4261R-0020A | ARM ASSY | P2 | NSP |
|  |  | 076 | 4510R-0047A | LEVER | SPRING |  |
|  |  | 077 | 3300R-M116A | PLATE | SLIDER |  |
|  |  | 078 | 4510R-0041A | LEVER | TENSION |  |
|  |  | 079 | 3040R-0056A | BASE | TENSION(D35) |  |
|  |  | 100 | 3301R-M022A | PLATE ASSEMBLY | TOP |  |
|  |  | 100A | 3300R-0184A | PLATE | GND |  |
|  |  | 100B | 3300R-M118A | PLATE | TOP(D35) |  |
|  |  | 102 | 4970R-0130A | SPRING | COIL D35 (STOPPER) |  |
|  |  | 103 | 4930R-0276A | HOLDER | SIDE(L) | NSP |
|  |  | 105 | 4930R-0274A | HOLDER | CST | NSP |
|  |  | 106 | 4930R-0275A | HOLDER | SIDE(R) | NSP |
|  |  | 107 | 4510R-0044A | LEVER | STOPPER | NSP |
|  |  | 109 | 5870R-0004A | OPENER | DOOR |  |
|  |  | 110 | 4260R-0035A | ARM | F/L(L) | NSP |
|  |  | 112 | 3070R-0002A | BODY | F/L | NSP |
|  |  | 113 | 4970R-0127A | SPRING | COIL D35 (F/L(R)) | NSP |
|  |  | 114 | 4260R-0036A | ARM | F/L(R) | NSP |
|  |  | 115 | 4510R-0042A | LEVER | SWITCH |  |
|  |  | 116 | 4970R-0138A | SPRING | COIL D35 SWITCH |  |
|  |  | 117 | 3300R-M137A | PLATE | SPRING CST |  |
|  |  | 401 | 1MEC0261518 | SCREW MACHINE,PAN HEAD SPR W | #NAME? |  |
|  |  | 402 | 1MPC0261418 | SCREW MACHINE,PAN HEAD | D 2.6 L 4.0 MSWR3/FZY |  |
|  |  | 405 | 1SZZR-0031B | SCREW,DRAWING | + 1 D2.6 L5.8 SWRCH16A/FZY TAP |  |
|  |  | 406 | 1MEC0302018 | PAN HEAD MACHINE SCREW S/W + | D 3.0 L 6.0 MSWR3/FZY |  |
|  |  | 409 | 1SZZR-0032B | SCREW,DRAWING | + 1 D2.6 L5.0 SWRCH18A/FZY TAP |  |
|  |  | 410 | 1APF0262218 | SCREW TAP TITE(B),PAN HEAD | #NAME? |  |
|  |  | 517 | 1WZZR-0004D | WASHER | STOPPER |  |
|  |  | 518 | 1WZZR-0004A | WASHER | STOPPER |  |